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PRIVATE EQUITY AS A FORM OF ACTIVE AND PROFESSIONAL OWNERSHIP: AN ANALYSIS OF VALUE-ADDING MECHANISMS OF PRIVATE EQUITY IN FINLAND

Thesis submitted in partial fulfilment of the requirements for the degree of Master in Science (Technology)

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ABSTRACT OF THE MASTER'S THESIS

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Earlier studies on the impact of private equity in Finland have provided positive results on the relationship between positive firm-level performance and private equity funding. Among other things, private equity has been shown to accelerate company growth and internationalization. These results highlight the importance to better understand how private equity investors contribute to the performance of their portfolio companies in the Finnish context.

This study provides a comprehensive overview on value-adding mechanisms of private equity in Finland and offers novel insights on research on value added by private equity. The study is conducted as a multiple-case study with 15 companies that have received PE funding during 2007-2011. The main data sources are interviews with investors as well as CEOs of case companies. A cross-case analysis is supported by a fuzzy-set qualitative comparative analysis (fsQCA) method in order to examine effects of investor experience and industry dynamism on value added of private equity.

The main result of this study is that Finnish PE investors contribute to the performance of their portfolio companies by adaptively using tools of active ownership, taking into account portfolio company and industry characteristics. Successful PE investors are able to promote opportunity-seeking behaviour and risk-taking in their portfolio companies when it is justified and controllable. On the other hand, PE investors facilitate growth by providing non-financial services that mitigate risks related to high growth. Furthermore, successful PE investors offer their portfolio companies not only their own expertise but also that of external industry experts, acquired through investor networks.

For academics, this study opens several interesting avenues for further research. For example, a cross-country comparison of value-adding mechanisms of private equity between Finland and more established markets, such as the US or the UK, would provide valuable new insights. For practitioners, results of this study highlight the need to acknowledge PE investors as active and professional owners who have the ability to help their portfolio companies grow fast and sustainably.

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Aiemmat tutkimukset pääomasijoittamisen vaikuttavuudesta Suomessa osoittavat, että pääomasijoittaminen vaikuttaa positiivisesti kohdeyritysten kehitykseen. Pääomasijoittamisen on huomattu muun muassa kiihdyttävän kohdeyhtiöiden kasvua ja kansainvälistymistä. Nämä positiiviset tulokset herättävät tarpeen ymmärtää paremmin niitä mekanismeja, joita suomalaiset pääomasijoittajat käyttävät edistääkseen kohdeyritystensä kasvua.

Tämä diplomityö luo kattavan kuvan suomalaisten pääomasijoittajien arvonluontimekanismeista ja tarjoaa uusia näkökulmia pääomasijoittamista koskevaan tutkimukseen. Työ on toteutettu case-tutkimuksen menetelmin. Otos sisältää 15 suomalaista yritystä, jotka ovat saaneet rahoitusta pääomasijoittajalta vuosina 2007-2011. Tutkimuksen pääasiallinen lähde ovat haastattelut pääomasijoittajien ja case-yritysten toimitusjohtajien kanssa. Perinteistä case-analyysia tukee fsQCA-menetelmä, jolla tutkitaan sijoittajan kokemuksen ja toimialan dynaamisuuden vaikutuksia pääomasijoittajan käyttämiin arvonluontimekanismeihin ja kohdeyhtiön menestykseen.

Suomalaiset pääomasijoittajat edistävät kohdeyhtiöidensä kehitystä käyttämällä aktiivisen omistajuuden työkaluja huomioiden kohdeyrityksen ja toimialan erityispiirteet. Menestyksekkäät pääomasijoittajat edistävät kasvu- ja riskinottohalukkuutta kohdeyrityksissään silloin, kun se on perusteltua ja hallittavissa. Nopean kasvun vaiheessa pääomasijoittajat tukevat portfolioyritystensä kasvua pienentämällä kasvuun liittyviä riskitekijöitä. Lisäksi menestyksekkäät pääomasijoittajat eivät tarjoa portfolioyrityksille vain omaa osaamistaan vaan myös ulkopuolista asiantuntija-apua verkostoidensa kautta.

Tämä työ tarjoaa mielenkiintoisia aiheita tulevaa pääomasijoitustutkimusta ajatellen. Esimerkiksi pääomasijoittamisen arvonluontimekanismien vertailu Suomen ja kehittyneempien markkinoiden kuten Yhdysvaltojen tai Iso-Britannian välillä olisi luonnollinen jatke tälle tutkimukselle. Laajemmalle yleisölle tämän työn tulokset osoittavat, että pääomasijoittajat ovat aktiivisia ja ammattimaisia omistajia, joilla on kyky auttaa kohdeyhtiöitään kasvamaan nopeasti ja kestävästi.

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Asiasanat: Pääomasijoittaminen, buyout, venture capital, arvonluonti, arvonluontimekanismit

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Maija Järvenpää

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1. Introduction

1.1. Background

The potential economic importance of buyouts and venture capital has attracted much both public and academic interest during the recent decades. As a consequence, also the amount of literature discussing impact of private equity and venture capital investing is extensive. Several studies have shown that venture capital and buyout investment have a positive effect on firm performance and the overall economy (see e.g. Strömberg (2009)). Regarding the impact of private equity in the Finnish context, studies of Männistö (2009) and Alén (2012) have found similar positive relationships between private equity funding and firm-level performance. This study builds on the earlier studies on the Finnish private equity industry, and by combining fine-grained interview data with secondary data sources, deepens the understanding of private equity in Finland.

Although there is clear evidence that private equity and venture capital investors contribute to the performance of their portfolio companies and further to the growth of the overall economy, it is not fully understood what are the key mechanisms behind this phenomenon. It is presented that value-adding activities include, for example, strategic and operational advice, monitoring and involvement in decision-making (see e.g. MacMillan et al. (1989), Gorman & Sahlman (1989), Sapienza (1992), Sapienza et al. (1996)). Furthermore, private equity investors differ in terms of their value-adding capabilities. For example, previous studies have found that private equity experience (Kaplan & Schoar 2005), prior business experience (Bottazzi et al. 2008) and investor networks (Hochberg et al. 2007) are associated with higher portfolio company performance. However, it is still rather unclear which mechanisms are value-adding in which investor-company configurations.

Moreover, in the public discussion there are several prejudices about both private equity and venture capital investing. For example, buyout investments are often associated with extensive cost savings programs and layoffs. Besides building on the prior studies on the Finnish private equity industry, the aim of this study is to provide improved and deeper understanding of private equity investing not only for academics and practitioners but also for the general public. Increased information about the topic will further dispel prejudices and potential misconceptions about the industry.

1.2. Research objectives and questions

Earlier studies have shown that Finnish PE funded companies outperform their non-PE funded peers (see e.g. Alén (2012), Männistö (2009)). However, it is not fully understood to what extent active involvement of the private equity investor contributes to this superior performance. Hence, the aim of this thesis is to explore mechanisms through which private equity investors can improve performance of their Finnish portfolio companies. The research question is as follows:

How do private equity investors contribute to the performance of their Finnish portfolio companies?

In order to answer this question, one has to understand what are the value-adding mechanisms of private equity, how investors have used these mechanisms in the Finnish context and when the involvement of private equity investor has positively affected the performance of the portfolio company. In addition, earlier academic studies have discussed how macroeconomic factors and industry characteristics drive fund-level performance (see e.g. Guo et al. (2011)). Moreover, earlier studies indicate that also investor-specific factors, such as earlier experience of the investor, affect fund-level performance (see e.g. Acharya et al. 2013). Although these findings are related to fund-level rather than firm-level performance, it is reasonable to examine whether market characteristics and investor experience affect value added by private equity investors. In conclusion, the main question can be divided into four sub-questions:

1) *What are the value-adding mechanisms through which private equity investors contribute to the performance of their portfolio companies?*
2) *How have private equity investors used these mechanisms in order to contribute to the operational performance of their Finnish portfolio companies?*
3) *How do investor characteristics affect value added by private equity?*
4) *What is the role of industry characteristics on value added by private equity?*

In order to answer these questions, this study has three primary objectives:

1) To review the existing academic literature about value-adding mechanisms of private equity
2) By studying the sample of case companies, to explore what mechanisms private equity investors have used in order to improve the operational performance of their Finnish portfolio companies
3) To provide a comprehensive overview that explains which mechanisms have been value-adding in various investor-company configurations

The purpose of the first objective is to provide relevant theoretical categories that can be utilized in case selection and later in the analysis and theory-building phases (see Chapter 1.3.). In other words, the first objective is essential in achieving the other two objectives. In addition, the successful fulfilment of the second objective is a pre-requisite for achieving the third objective.

1.3. Research design, methods and scope

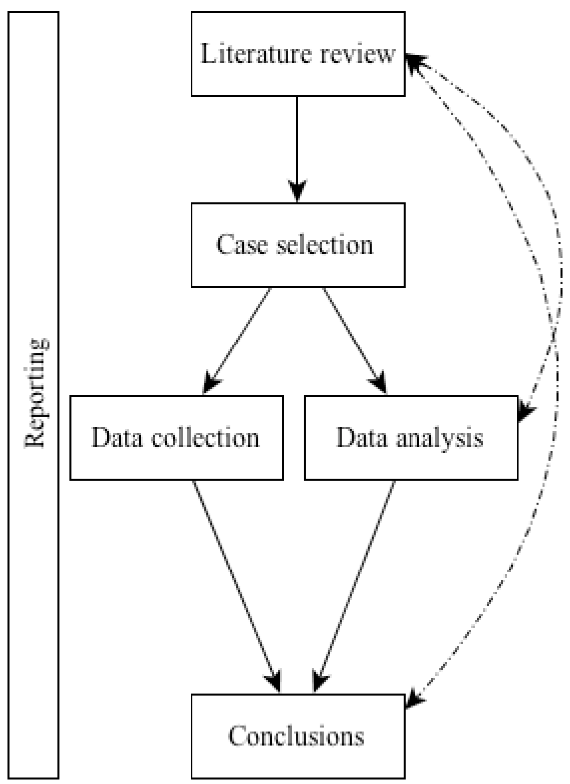
This thesis is conducted as a case study. The research process can be divided into six distinct, yet interconnected phases as illustrated in ***Figure 1***. First, academic literature is used for developing an initial theoretical framework. Findings of the literature review further guide the case selection process, interviews and the study in general.

After the literature review, cases are selected so that they fill relevant conceptual categories. In other words, case selection follows theoretical, rather than random sampling. (Eisenhardt 1989) As discussed in Chapter 1.2, earlier academic studies have examined how industry and investor-specific characteristics drive fund performance. Hence, it is justified to choose cases from different industries and with different types of investors in order to explore whether these types of factors affect the use of value-adding mechanisms.

Furthermore, cases are selected so that the sample includes both exceptionally well-performed companies as well as companies whose performance after the investment has been either moderate or even negative. By examining both successful companies and their peers, it is ensured that the study reveals not only what successful case companies have in common but also how successful companies differ from their peers in terms of investor contribution

The third and fourth phases of the study, data collection and analysis, are conducted in parallel. This approach ensures that initial findings are taken into account also in data collection phase (Eisenhardt 1989). The final phase is to develop a relevant and meaningful theoretical framework, which summarises the findings of the study. In this phase, cross-case analysis is complemented with fuzzy-set qualitative comparative analysis, which reveals how different investor-environment-company configurations can lead to positive outcome. As can be seen in ***Figure 1***, analysed data is constantly compared with the findings of the literature review. In other words, the process is iterative in nature.

Figure 1. Research process.



1.3.1. Unit of analysis and scope

In this study, units of analysis are Finnish companies that have received private equity funding. Both venture capital and buyout investments are in the scope of this study. The private equity firm from which the case company has received funding can be headquartered either in Finland or abroad. However, to ensure the availability of the data, cases are selected so that the investor is a member of the Finnish Venture Capital Association.

Case companies can operate in any industry. However, the sample is selected so that it includes companies, for example, from both growing and more mature industries. Similarly, the sample includes both highly successful companies in terms of sales growth and companies that have not been able to improve their performance significantly after receiving private equity funding.

Regarding the time frame of the study, suitable case companies have received private equity funding during 2007-2011. Companies that have received funding earlier are not in the scope of this study as they have operated in a significantly different macroeconomic environment than companies that have received funding just before or during the financial crisis of 2008. Hence, conducting a cross-case analysis of two case companies that have received funding, for example, in 2002 and 2008, respectively, would not be relevant. On the other hand, it is hard to assess the post-deal performance of companies that have received funding after 2011 i.e. less than three fiscal years ago.

Furthermore, this study focuses on mechanisms that private equity investors use in order to improve the performance of their portfolio companies. Topics such as the impact of private equity and value-drivers of private equity investments are discussed briefly in the literature review and taken into account in the case selection phase. However, these topics are not the primary focus of this study. Finally, the study focuses on value-adding mechanisms that affect the firm-level, operational performance. Hence, excluding the analysis of relevant findings of the earlier academic research, fund- and investment-level performance measures such as internal rate of return are not in the scope of this study.

1.3.2. Data sources

Regarding the case selection phase, the main data sources include archival data collected in the prior study of Alén (2012), various listings of growth companies such as Deloitte Technology Fast 50 and discussions with industry experts.

In the data collection phase, the primary data sources are interviews with investors and managers of case companies. This data is supported by and combined with secondary sources such as investment round data from SDC VentureXpert, information on prior work experience of investment managers from Linkedin and additional, complementary event data from press releases and board reports.

1.4. Definitions of key terms

Private equity

EVCA (2007) defines private equity as *"the provision of equity capital by financial investors – over the medium or long term – to non-quoted companies with high growth potential"*. Private equity is hence the main category for all equity capital investments that are made in non-stock listed companies, and it can be further divided into two main sub-categories, namely *buyouts* and *venture capital*.

Buyout

Buyout is a type of private equity investment in which a PE investor acquires a controlling stake of a company, often together with the existing management team (management buyout, MBO) or with an outside management team (management buy-in, MBI). Typically, invested companies are fairly established, and investments are financed partly by debt. If debt accounts for a substantial share of the total investment sum, the investment is called a leveraged buyout (LBO). (EVCA 2007)

Venture capital

EVCA (2007) defines venture capital as *"equity investments made for the launch, early development, or expansion of a business. It has a particular emphasis on entrepreneurial undertakings rather than on mature businesses"*. In other words, venture capital investments differ from buyouts primarily in terms of investment stage.

PE investor, PE company and PE fund

This thesis focuses on value-adding activities and resources provided by one or several investment professionals, and hence it is important distinguish *an individual investment professional or a group of investment professionals* from a private equity company as a whole. Hence, companies that manage private equity funds (PE fund) are called as PE companies while investment professionals who work in PE companies are called in this thesis as PE investors. These definitions include both buyout and venture capital investors and companies. Differentiation between buyouts and venture capital is made when appropriate (buyout investor/company vs. VC investor/company). Also terms *'investment partner'*, *'investment manager'* and *'investment professional'* may be used to refer to an individual PE investor.

Sometimes in the academic literature, the term 'venture capitalist' (the VC) is used to refer to all those parties that make private equity investments, including also buyout investors. However, for the sake of clarity, this thesis does not use the term 'venture capitalist' and the prefix 'VC' refers only to venture capital investments, investors or companies.

Portfolio company

Portfolio company, called also a target company, is a company that has received either equity or mezzanine funding from and is at that time funded by a private equity company.

Entry

Entry means the first private equity investment of the PE fund in the portfolio company. Especially in venture capital, portfolio companies typically receive funding during multiple financing rounds. In this thesis, also the term 'initial investment' is used to refer to the entry.

Exit

In exit, the PE company divests its ownership in the portfolio company. Typical forms of exit are trade sale i.e. sale to an industrial buyer, sale to another PE company and initial public offering (IPO) (EVCA 2007).

1.5. Structure of the thesis

This study is organised as follows. In Chapter 2, I summarise the key findings of the existing academic literature discussing the value-adding mechanisms of private equity. Chapter 3 presents a more detailed research methodology and main data sources. Chapter 4 presents the results of the study while Chapter 5 discusses what are the implications of these results. Furthermore, Chapter 5 assesses the validity and reliability of the study and provides some directions for the future research.

2. Literature review

The purpose of this chapter is to summarise the key findings of the existing academic studies on the value-adding mechanisms of private equity. The findings of the literature review provide guidelines for the rest of the study. By analysing the results of the existing research, this chapter identifies research gaps based on which relevant research questions and research design are developed. In addition, the literature review discusses relevant theoretical categories that are utilised in the case selection and analysis phases.

This literature review follows the approach used by Männistö (2009) and Alén (2012) i.e. utilises the categorization of Alemany & Martí (2005) who divide the research on private equity into two main streams, namely studies on the impact of private equity and studies on the value added by PE investors. The first stream of research focuses on the question whether PE investors are able to contribute to the success of their investments and further to the growth of the economy. More specifically, research on the impact of private equity tries to measure the potential economic and societal impact of private equity investing.

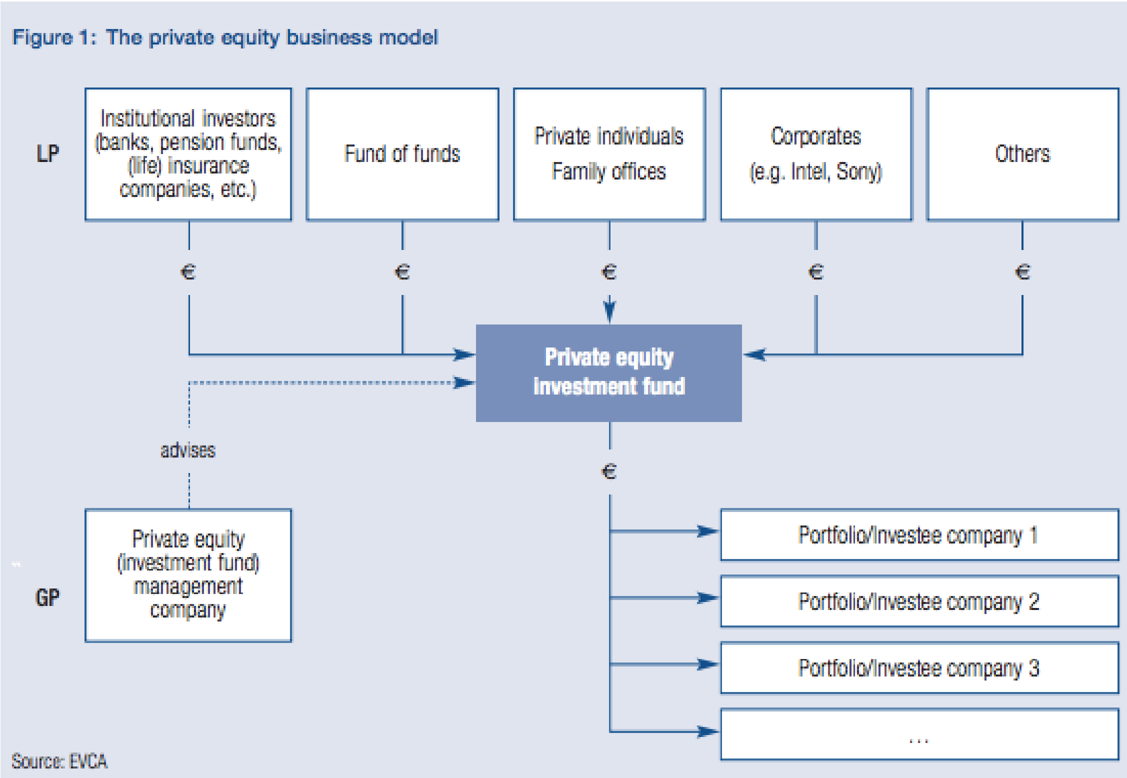
This study focuses on the latter mentioned line of research, which examines how PE investors contribute to the success of their investments. During the recent years, the focus of research on the value added by PE investors has shifted from non-financial services, often referred as value-adding services, provided by PE investors to more complex value-adding mechanisms. The key question of this research stream is whether some PE investors have distinctive skills and/or qualities that allow them to (i) choose best investment targets and invest in the most potential companies and/or (ii) provide better value-adding services to their portfolio companies.

The literature review is divided into four sections. The first subchapter provides a brief overview of private equity and discusses some key characteristics of the Finnish private equity industry. The key themes of the existing research on private equity are presented in chapters 2.2. and 2.3. Finally, findings of the literature review are summarised and research questions identified.

2.1. What is private equity?

As defined in Chapter 1, private equity means investing mainly equity capital in non-publicly listed companies that have potential for good future performance. Investments are usually realised i.e. exited after 3-7 years after the first investment. In other words, the private equity investor is a medium-term owner of the company. (FVCA 2010) The typical structure of a private equity fund is illustrated in ***Figure 2***. The system has four key phases, namely fundraising, target selection, investment period and exit.

Figure 2. Private equity business model. (EVCA 2007)



In the fundraising phase, a PE company i.e. the general partner invites institutional and individual investors i.e. limited partners to invest in the private equity investment fund. Limited partners provide the fund with capital and in exchange, become shareholders of the investment fund. At this stage, also the fund's life span and investment strategy, for example in terms of growth stages and industries, are defined. After the fundraising, fund managers start to seek and invest in appropriate portfolio companies according to the pre-defined investment focus. (EVCA 2007) It should also be noted that the responsibility of the general partner is to manage the portfolio on behalf of limited partners, and hence limited partners pay a fixed annual compensation called management fee for the PE company. Thus, cash flows of the private equity company consist of the fixed management fee and share of the possible fund returns. (FVCA 2010)

In order to increase the value of their investments during the fairly limited investment time frame, private equity investors not only provide funding but also exercise different forms of active ownership. Typically, PE investors are actively involved in the monitoring of the financial performance of their portfolio companies (e.g. Gorman &

Sahlman 1989; Jensen 1989). PE investors can also participate in the strategic planning and decision-making (e.g. Sapienza et al. 1996) in order to promote growth and entrepreneurial behaviour in their portfolio companies (e.g. Wright et al. 2000; Wright et al. 2001; Bruining & Wright 2002; Bruining et al. 2013). Considering especially young ventures, private equity investors can add value by helping the company to systematize its internal processes and professionalize the organization (Hellmann & Puri 2002). These types of non-financial services and their potential impact on the company performance are at the core of this thesis.

In the exit phase, the private equity fund generates returns by selling the ownership of the company, for example, to trade buyer or another investor. Another common exit route is to take the company public through an initial public offering (IPO). (FVCA 2010) At this point, capital gained in the exit is returned to limited partners –original shareholders of the fund. When all the committed capital has been invested and some investments have been realised, the private equity company can start collecting its next fund. Naturally, the popularity – and further the size of the following fund depend on the successfulness of previous funds. (EVCA 2007)

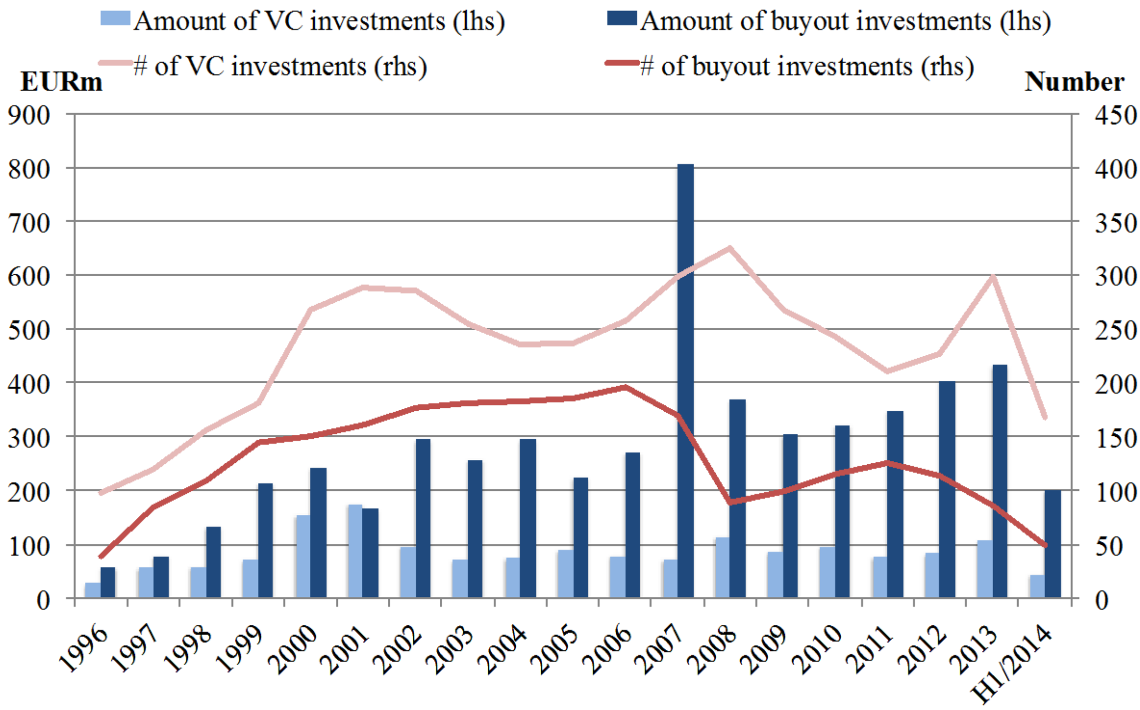
Considering the society as a whole, private equity investing has various effects. The growth of portfolio companies has been proved to have a positive effect for example on employment (Engel & Keilbach 2007), corporate tax payments (Alemany & Martí 2005), and innovation and the creation of new firms (Samila & Sorenson 2010). In addition, as pension funds are significant shareholders in private equity funds (EVCA 2013), profits of the private equity fund affect pension revenues and hence, the private equity sector can be also considered to have an effect on the wealth of individual citizens.

2.2. Private equity in Finland

The Finnish private equity industry was born in late 1980s when the first Finnish private equity companies were established (Erola 2014). In 1990, Finnish Venture Capital Association (FVCA), whose objective is to increase awareness of the private equity sector, was founded with 17 founding members (FVCA 2010). Currently, the association has 48 full members (FVCA 2014b). This increase in the number of members in FVCA reflects the significant growth of the industry during the last quarter century.

The growth of the industry can also be seen in ***Figure 3*** as both the number and total amount of investments have grown significantly since 1996. However, the Finnish private equity sector, among other industries, has not been immune to global, macro-economic events. As can be seen in the number of VC investments, the burst of the dot-com bubble affected also the Finnish PE industry in early 2000s. Also the global financial crisis increased uncertainty in the Finnish PE market and decreased investment activity during 2008-2009. Investment activity has stably recovered from 2010 onwards, reaching a good level 2013, albeit far from the record year of 2007. Based on H1/2014 figures, both the value and number of buyout and venture capital investments can be expected to be approximately at the same level in 2014 than in 2013.

Figure 3. The number and amount of private equity investments made by Finnish PE companies during 1996-H1/2014. (FVCA 2010; FVCA 2011; FVCA 2014c)



Despite the growth of the industry, the Finnish private equity sector still accounts for only a small fraction of the global supply of private equity funding. For example in Q1/2014, Finnish PE companies invested approximately 116 millions euros (FVCA 2014a) while the equivalent number for the members of the US-based National Venture Capital was 9,5 billion dollars (NVCA 2014). Considering private equity investments as a percentage of the GDP, in 2013 Finland placed fifth among European countries after the UK, Denmark, Sweden and France (EVCA 2013).

Figure 3 also shows a typical pattern in the Finnish private equity industry; VC investments dominate in terms of number of investments but buyout investments form a larger share of the total amount invested. The large number of VC investments is due to the fact that VC funds tend to stage and syndicate their investments. On the other hand, buyout funds focus on larger companies than VC funds, and hence buyout investments exceed VC investments in terms of investment amount. Another notable pattern in the Finnish private equity industry is tendency of PE investors to invest most of their funds in domestic companies. This applies to both VC and buyout investments (FVCA 2011).

Despite Finnish PE funds' strong emphasis on the Finnish companies, foreign investments are an important source of private equity funding for Finnish companies (FVCA 2011). For example during 2013-H1/2014, foreign investors accounted for 34% of VC and 36% of buyout investments in Finnish companies in terms of investment amount (FVCA 2013; FVCA 2014c). Hence, an ability to attract international capital into Finland can be considered one of the key aspects of the Finnish PE sector.

According to Nordic Growth Entrepreneurship Review 2012, venture capital investments in Finland, like in other Nordic countries too, are mostly focused on early-stage cases (i.e. seed or start-up), which means that companies that are in expansion stage may face difficulties when seeking VC financing. The review argues that this phenomenon is not only a supply-side problem but also reflects the lack of capable entrepreneurs who are able to scale up young ventures. (Nordic Innovation 2013) However, recent statistics of FVCA show that considering VC investments, share of later stage venture investments has steadily increased since 2012. In H1/2014, later stage venture investments accounted for 24% of all VC investments in Finnish companies while the equivalent number in 2012 was only 18% (FVCA 2014c).

Reflecting the relatively young age of the industry, the amount of research on the Finnish PE sector is still somewhat limited. Earlier research on the topic include studies of Lähdemäki (2007), Männistö (2009) and Alén (2012). These three studies focus on the impact of private equity, and hence they differ mainly in terms of methodology. Lähdemäki (2007) compares performances of portfolio companies of one Finnish PE company to industry averages. Männistö (2009) examines whether post-investment performance of companies that received PE funding from the members of the Finnish Venture Capital Association during 2002-2004 differs from that of the control group. Also Alén (2012) studies post-investment performance differences between PE backed companies and their mathced peers. However, study of Alén (2012) adopts a wider time horizon from 2002 to 2008. In addition, in order to overcome potential biases due to selection effects (i.e. PE investors invest in companies with higher growth potential), Alén (2012) uses a balancing score mathing methodology in the construction of the control group. Hence in the methodological sense, study of Alén (2012) can be considered the most sophisticated of these three studies.

In conclusion, studies of Lähdemäki (2007), Männistö (2009) and Alén (2012) represent a continuum in the research on the Finnish private equity industry. Findings of these three studies will be discussed in more detail during the next chapters. In general, results imply that in Finland, private equity investing has a positive effect on firm performance. These positive results provide interesting questions for further research on the Finnish PE sector and highlight the need for more fine-grained analysis.

2.3. Research on impact of private equity

Research on impact of private equity studies relationships between private equity investments and changes either in the firm-level performance or in the growth of the overall economy. Typical measures of the firm-level performance include operational indicators such as revenue and the number of employees as well as other measures including innovativeness and internationalisation. Impact on the economy is evaluated by studying, for example, changes in the employment, aggregate income and the number of new start-ups.

Although the main focus of this study is on the value-adding mechanisms of private equity, research on impact of private equity is an important topic to be discussed for two key reasons. First, studies that indicate that the impact of private equity on the firm-level performance and the overall economy is positive indicate that private equity investors either choose the most potential companies, or offer some value-adding services that improve company performance. Second, impact of private equity seems to differ, for example, between geographical regions, which implies that PE investors differ in terms of ability to create value in their portfolio companies. This finding creates a need for a deeper analysis of the value-adding mechanisms of private equity.

2.3.1. Operating performance

Earliest studies discussing the performance impact of private equity typically focus on pre- and post-deal performance of buyout investments in the United States during the late 1980s. For example, by studying performance of companies that had been targets for large-scale MBOs during 1980-1986, Kaplan (1989) shows that MBOs have a clear positive effect on net cash flow, operating income and expenditure. Also the studies of Bull (1989) and Singh (1990) compare the pre- and post-deal performance of buyout companies. Their results indicate that buyouts are associated with higher sales growth and better than industry-average or improved profitability.

A more recent study on operational gains of buyouts is from Guo et al. (2011) who study returns and changes in operating performance of public to private transactions in the United States during 1990-2006 and compare the results to earlier findings from the first buyout wave from 1980s. Guo et al. (2011) show that the studied sample achieved smaller gains in operating performance than those reported during the LBO boom in 1980s. However, researchers also note that the variation in operational performance within the sample is significant, which implies that operating performance may differentiate cases with high returns from their less successful peers.

Results from Europe are somewhat more diverse. Wright et al. (1992) analyse LBOs in the UK during 1980s and present that buyouts have a positive effect both on profitability and working capital management. The more recent study of Weir et al. (2008) provide to a some degree support for the results of Wright et al. (1992) . Weir et al. (2008) examine public-to-private transactions in the UK during 1998-2004 and argue that companies that are backed by a private equity company, experience higher efficiency, measured as lower expenses, and increased liquidity. However, authors find no evidence for improved overall profitability, which they explain by the fact that PE companies invested in large companies, which had the poorest initial profitability in the sample.

On the other hand, studies from France and Belgium provide less encouraging results. The research on Belgian buyouts shows that there is no relationship between PE backed buyouts and higher sales growth (Goossens et al. 2006). In addition, Desbrières & Schatt (2002) find that that, for example, profitability and return on equity of French buyout companies decrease after the investment compared to the industry average. However, they note that these conflicting results may be due to the special characteristics of the French buyout market, such as relatively low debt levels of buyout target companies. By referring to the popular article of (Jensen 1989), Desbrières & Schatt (2002) analyse that due to indebtedness, managers of French buyout backed companies have less pressure to perform well than their colleagues in more heavily leveraged, buyout backed firms.

Considering venture capital investments, involvement of the private equity investor has in general been considered to have a positive effect on growth and productivity. For example, evidence from Spain indicates that there is a positive relationship between firm-level performance and VC funding. By examining Spanish companies that have received VC funding during 1989-1998, Alemany & Martí (2005) argue that VC funding has a significant positive effect, for example, on sales and profitability.

Besides sales growth, VC funding has been shown to accelerate productivity. Study of Croce et al. (2013) examines a sample of relatively young companies (i.e. less than 20 years old in 2010) in six European countries. Croce et al. (2013) show that before the VC investment, there are no notable differences in productivity growth between VC backed and non-VC backed companies, but after the VC investment, the productivity growth of VC backed companies is significantly higher than that of the matched control group.

In Finland, research on the performance impact of private equity include studies of Lähdemäki (2007), Männistö (2009) and Alén (2012). Lähdemäki (2007) finds that studied PE backed companies experiences a significant 12 %-point higher sales growth than the industry average. Also results of Männistö (2009) and Alén (2012) support the argument that Finnish PE companies accelerate growth of their portfolio companies as both studies report that PE backed companies grow significantly faster than their matched control groups. Alén (2012) finds that annual sales growth of PE backed companies is 9 %-points higher than that of their matched peers. Results of Männistö (2009) suggest that, in absolute terms, PE backed companies achieve significantly higher sales growth (€4.65m vs. €1.26m) three years after the initial investment than the control group.

One explanation for these highly positive results from Finland is that Finnish PE backed companies are typically smaller than their foreign peers. For example in H1/2014, the average VC investment in Finland was 260,000 euros and average buyout investment 4.1 million euros (FVCA 2014c). In contrast, for example in the UK, average VC investment is reported to be around 1 million euros and average buyout investments greater than 30 million euros (BVCA 2013). In smaller companies, value is more likely created through fast growth than increased efficiency. Hence, in the Finnish context, PE investors seem to have an important role as growth promoters of small and mid-sized companies.

2.3.2. Employees

Based on the existing academic research, impact of private equity on employment seems to differ between buyout and venture capital investments. In general, VC investments have been found to accelerate employment growth while results considering buyouts are somewhat more diverse. For example, Davis et al. (2011) shows that buyouts both decrease employment and create new jobs. However, these differing results between VC and buyouts are sensible. In small VC backed companies, growth probably leads to increase in headcount. In contrast, growth of more mature buyout backed companies may require reallocation of certain jobs rather than just hiring of new employees.

Engel (2002) studies the effect of VC investment on the employment growth of young German companies. He finds that VC backed companies experience approximately 170 %-points higher employment growth than their non-VC backed peers. In contrast, Engel shows that the effect of other external investors on employment growth is approximately 50 %-points, which is clearly lower than the effect of VC funding. Hence in the German context, VC backing seems to have a positive effect on employment growth and VC funding is a stronger driver of employment growth than involvement of other types of investors.

Results of Engel & Keilbach (2007) provide support for the findings of Engel (2002). By comparing German VC backed companies with their matched non-VC backed peers, Engel & Keilbach (2007) show that in terms of employment growth VC backed companies grow faster than their counterparts. According to Engel & Keilbach (2007), the effect of VC funding on employment growth vary across industries, business related services representing the strongest effect.

Achleitner & Klöckner (2005) study changes in employment in both buyout- and VC backed at a Pan-European level. By combining survey data with secondary data sources of the European Venture Capital Association, Achleitner & Klöckner present that in 2004 European buyout backed and VC backed companies employed almost 5 million and 1 million people, respectively. Authors argue that during 2000-2004 employment in European PE backed companies grew approximately 5.4% p.a., which means that PE backed companies created approximately 1 million new jobs during the studied time period. Achleitner & Klöckner also highlight that buyout and venture capital investors have somehat different roles in promoting employment: while 83% of people working in PE backed companies work in buyout backed companies, majority of new jobs, 630,000 out of 1 million, were created in VC backed companies.

Considering impact of buyouts on employment growth, academic studies provide a few different viewpoints. For example, Amess & Wright (2007) study a sample of 5396 UK companies during 1999-2004 and find that although in general LBOs experience a sligthly higher employment growth than non-LBOs, this effect is not statistically significant. However, authors note that MBOs and MBIs have a different effect on employment growth: employment growth is higher for MBOs and lower for MBIs than for their industry peers.

Davis et al. (2011) study US buyouts during 1980-2005 and propose that buyout companies *"catalyze the creative destruction process in the labor market"*. This means that although employment decreases in buyout companies, these companies also create new jobs at a faster pace than the control group. As a consequence, according to Davis et al. (2011) , the net effect of buyouts on company employment is less than -1%. These findings provide support for the proposition that buyouts increase efficiency, in this case by reallocating jobs in the portfolio company.

In the Finnish context, private equity has been found to have a highly positive effect on portfolio company employment. Lähdemäki (2007) presents that employment growth is 55 %-points higher in PE backed companies than the industry average. Findings of Männistö (2009) are equally, if not even more positive as he suggests that in absolute terms, PE backed companies achieve an employment growth of 14.1 persons three years after the initial investment while the equivalent number for non-PE backed companies is only 2.1 persons. Finally, Alén (2012) shows that PE backed companies experience 6 %-points higher annual employment growth than the control group. Also these results reflect the relatively small size of Finnish PE backed companies; employment growth is naturally higher in relatively small, fast growing firms than in large, mature corporations.

2.3.3. Innovation

Literature on the impact of private equity on innovation focuses primarily on venture capital. This is natural as innovation is often associated with young, high-tech companies that typically receive VC rather than buyout funding. Furthermore, results on the effect of private equity on company innovativeness are diverse. Several studies have found that PE funding is associated with increased innovativeness (Kortum & Lerner 2000), while other studies report no statistically significant relationship between PE investments and innovation (Popov & Roosenboom 2012). In addition, it has been suggested that potential positive relationship between PE funding and innovation would be due to selection effect rather than post-investment value added of private equity (Engel & Keilbach 2007).

One of the most cited articles on the impact of private equity investing on innovation is the study of Kortum & Lerner (2000). By analysing the number of issued patents in the US during 1965-1992, Kortum & Lerner (2000) find a significant positive relationship between increased venture capital activity and the number of issued patents. They argue that VC funding may have accounted for approximately 8% of the industrial innovation during 1983-1992 in the United States.

In contrast, Popov & Roosenboom (2012) argue that European VC funds have been less successful in promoting innovation than their US peers. They study a sample of VC investments in 21 European countries during 1991-2005 and compare their results to those of Kortum & Lerner (2000). They argue that while the effect of European VC investing on patenting activity can be considered mostly positive, statistical significance of these results is questionable. They also note that results vary greatly between countries. The effect of VC investing on industrial innovation was found to be stronger in those countries with low barriers to entrepreneurship and VC-friendly regulatory and tax environment.

Results of Engel & Keilbach (2007) indicate that rather than facilitating innovation activities of start-ups, VC investors choose to invest in already innovative companies.

Engel & Keilbach (2007) study a sample of German VC funded companies, their matched comparable companies and changes in the number of patent applications, and find that although VC backed companies are more innovative than their peers, these companies were more innovative already before receiving funding from a VC company. These results indicate that instead of boosting innovativeness, VC investors focus on commercialisation of innovations. These findings are in line with the study of Hellmann & Puri (2000), which shows that of innovative firms are more likely to receive venture funding.

González-Uribe (2013) provides another interesting perspective on relationship between PE funding and innovation. González-Uribe (2013) studies patents of VC backed companies that were issued before the VC investment and compares how the number of citations of those patents developed after the investment compared to the number of citations of other patents invented by non-VC funded companies. One main finding of González-Uribe (2013) is that after the VC investment, patents of VC backed companies received a significantly larger number of citations than comparable patents. In addition, González-Uribe (2013) notices that the key driver of this subsequent increase in the number of citations was the increase in the number of citations from companies that had received funding from the same VC. These findings imply that VC investors facilitate the diffusion of knowledge among their portfolio companies and hence have an important role in facilitating innovation.

Regarding buyouts, Lerner et al. (2011) examine whether changes in patenting activity before and after the LBO support the public belief that PE investors sacrifice long-term development to gain short-term returns By studying the sample of 472 LBO transactions three years before and five years after the investment, Lerner et al. (2011) examine how the number of patent citations and nature of patenting activity have changed. Lerner et al. argue that contrary to the public belief, the number of patent-to-patent citations increases after the buyout. However, Lerner et al. (2011) study only buyout backed companies, and hence, based on this study, it is impossible to say whether buyout funded companies are more innovative than their non-PE funded peers.

Considering Finland, there is no clear indication of the positive relationship between PE funding and increased company innovativeness. Männistö (2009) measures company innovativeness as the growth of intangible assets and finds that this indicator is positively associated with PE funding. However, this results it not statistically significant at 95% confidence level. In addition, Alén (2012) shows that PE backed companies in general are not more innovative than their matched peers. However, by analysing VC funded companies and buyouts separately, Alén (2012) notices that VC backed companies demonstrate higher innovativeness in terms of new patents and R&D intensity than their matched peers. In conclusion, results of Männistö (2009) and Alén (2012) imply that in Finnish portfolio companies, PE investors in general focus on commercializing innovations rather than creating them, as suggested by Engel & Keilbach (2007) and Hellmann & Puri (2000).

2.3.4. Internationalization

Studies on impact of private equity on portfolio company internationalization typically consider the question *when* does the involvement of PE investor lead to increased international activity. In this sense, this stream of studies is relatively close to studies on the value added by private equity. Factors that affect positively company internationalization include international experience of the management (Carpenter et al. 2003), international experience of the investor (Fernhaber & Mcdougall-Covin 2009), type of owner (George et al. 2005) and domicile of the investor (Mäkelä & Maula 2005).

Carpenter et al. (2003) describe VC investors as *"reasoned risk takers"* i.e. VC investors are willing to promote portfolio company internationalization and carry associated risks if there are some significant risk mitigating factors. Carpenter et al. (2003) study a sample of relatively young IPO firms in the electrical and electronic equipment industry and examine whether VC backing and international experience of top-management and/or board members appointed by the VC investor affect international sales of the portfolio company. Contrary to their initial hypothesis, Carpenter et al. (2003) notice that VC backing itself has negative effect on the extent of international sales of the company. However, Carpenter et al. (2003) find that if top management team and/or board members have international experience, the relationship between VC funding and global sales is positive. This means that the effect of VC funding on company internationalization depends on risks and risk-mitigating factors, such as relevant international experience.

Similarly to Carpenter et al. (2003), George et al. (2005) examine how the ownership structure of the company affect attitudes to risk taking and further internationalization. More specifically, George et al. (2005) study a relationship between internal (i.e. CEO and top-management team) and external (i.e. institutional and VC investors) ownership on the scale and scope of internationalization of Swedish SMEs. In this case, scale of internationalization refers to the extent to which the company operates internationally while scope of internationalization means the number countries to which the company exports its products. George et al. (2005) notice that VC funding is associated with the increased scale, but not scope, of SME internationalization, and that this effect is even stronger if also the CEO or the top-management team ownership is present. According to George et al. (2005), these findings imply that one central value creation mechanism of private equity is the alignment of goals of owners and managers, which increases the risk appetite of the company and further promotes, for example, internationalization.

Findings of Zahra et al. (2007) provide support for the results of Carpenter et al. (2003) and George et al. (2005). Instead of international exports or operations, Zahra et al. (2007) study how international knowledge-based resources, such as developing new products to international markets and focusing R&D efforts on international business, are affected by top-management team and VC ownership in US-based SMEs. Zahra et al. (2007) conclude that both top-management team and VC ownership are associated with the development of these resources. In addition, Zahra et al. (2007) argue that this relationship is intensified if the company has outside board members. Based on their findings, Zahra et al. (2007) suggest that besides monitoring, external board members, who in the case of VC backed companies are often appointed by VC investors, have also a more supporting role that can promote the development of international capabilities in VC funded companies.

Mäkelä & Maula (2005) provide another interesting perspective on the relationship between VC funding and portfolio company internationalization. They argue that the effect of VC funding on portfolio company internationalization depends on the fit between the target market of the company and the domicile of the VC. In their multiple-case study of 9 Finland-based companies, Mäkelä & Maula (2005) propose that "*foreign investors tend to drive portfolio companies towards their home markets*". Hence, Mäkelä & Maula (2005) conclude that the involvement of the VC investor can have either a positive or negative effect on internationalization of the venture depending on whether the domicile of the VC is the same as the target market of the portfolio company. According to Mäkelä & Maula (2005), the positive effect is due to endorsement, knowledge of the local environment and increased legitimacy of the venture provided by a local investor.

Fernhaber & Mcdougall-Covin (2009) consider the role of international experience and reputation of the VC in new venture internationalization. By studying young, US-based high-tech companies Fernhaber & Mcdougall-Covin (2009) find that international experience of the VC who serves in the board of the portfolio company is positively associated with the company internationalization measured by multi-item scale including the scope of internationalization and international sales and asset intensity. In addition, Fernhaber & Mcdougall-Covin (2009) show that this positive effect of international knowledge on internationalization is stronger if the VC is also highly reputable.

In the Finnish context, Alén (2012) finds that, in terms of growth of export intensity and share of foreign board members, Finnish PE backed companies are after the investment more international than their matched control group. However, Alén (2012) notes that neither the actual sample or the matched control group operate especially internationally, as the overall export intensity and the number of foreign mergers and acquisitions are relatively low in both groups.

2.3.5. Impact on the overall economy

Effect of private equity on the overall economy is, in general, found to be positive. Typical indicators for economic impact are productivity growth of the economy (Romain & van Pottelsberghe 2004), firm entries (Samila & Sorenson 2010) and increase in corporate taxes (Alemany & Martí 2005).

By analysing a panel data of 16 OECD countries during 1990-2001, Romain & van Pottelsberghe (2004) argue that venture capital funding contributes to the overall economic performance by improving productivity growth. Researchers show that VC funding is a more important factor contributing to productivity growth than public or business R&D. Romain & van Pottelsberghe (2004) analyse that there are two key mechanisms why venture capital contributes to the economic growth. First, venture capital funding increases product and process innovation. Second, venture capital helps the economy to absorb new knowledge produced by universities and companies.

Findings of Samila & Sorenson (2010) provide support for the latter-discussed mechanism of Romain & van Pottelsberghe (2004). Samila & Sorenson (2010) study patenting activity and firm births in the United States during 1993-2002 and find that there is a positive relationship between government grants to universities and patenting rates and firm formation, which is intensified as the amount of venture capital activity increases. In conclusion, Samila & Sorenson (2010) argue *"that the public funding of academic research and venture capital have a complementary relationship in fostering innovation and the creation of new firm"*.

Besides productivity growth, another typical way to measure the impact of private equity on the overall economy are corporate taxes. For example, Alemany & Martí (2005) find that in the Spanish context, VC backed companies experience higher corporate tax growth than their non-VC backed peers. In addition, Alemany & Martí (2005) show that cumulative venture capital funding has a positive relationship with growth in corporate taxes.

In Finland, Männistö (2009) and Alén (2012) have studied the effect of private equity on corporate tax payments. Männistö (2009) finds no relationship between PE funding and cumulative corporate tax payments. In contrast, Alén (2012) finds a statistically significant relationship between PE funding and relative growth in corporate taxes. However, considering only venture capital, results of Alén (2012) imply that corporate taxes of VC backed companies grow slower than those of their matched peers. Alén (2012) provides one explanation for this perhaps somewhat surprising result by highlighting that fast-growing companies also invest more heavily in R&D – investments in R&D are considered as intangible assets, which can be further written off to decrease taxable profit.

2.4. Research on the value added by PE investors

This chapter is divided into three parts based on different streams of research. The first research stream focuses on the screening capabilities of PE investors while the second field of studies examines what PE investors do after the investment in order to boost the performance of their investments. The third line of research argues that some investors have qualities, such as reputation, that enable them to pick the best investment targets and/or provide better value-adding services to their portfolio companies.

2.4.1. Value added through target selection

Studies that will be discussed in this chapter focus solely on venture capital, and hence, next discussed results are not directly applicable to the whole private equity sector. Nevertheless, research on the value added through target selection provides valuable insights on the role of the VC investor's screening capabilities – and also limitations of those capabilities. The next introduced studies can roughly be divided into two categories; those examining the decision making process of VC investors and those trying to measure the effect of target selection on the superior performance of PE backed companies. The line between these two research streams is not clear as both streams are interested for example in the investment decision criteria used by PE investors. The difference between these research streams is rather methodological and temporal as the first line of research consists mainly of interview and survey studies conducted during late 1980s and late 1990s while the second line of research includes more recent, often econometric, analyses.

Studies of Tyebjee & Bruno (1984), Macmillan et al. (1986) and MacMillan et al. (1987) belong to the first-mentioned group of studies. A survey study of Tyebjee & Bruno (1984) examine 91 portfolio companies from 41 VC firms in the United States. Tyebjee & Bruno (1984) present that market attractiveness and product differentiation are main factors affecting expected return. On the other hand, researchers note that managerial capabilities and environmental threat resistance are inversely related to expected risk. In other words, an ideal portfolio company would be one that is in a highly attractive market, is not vulnerable to outside threats and has a unique product as well as experienced and skilled top-management team that is able to mitigate possible risk associated with high-growth.

Findings of Macmillan et al. (1986) somewhat differ from those of Tyebjee & Bruno (1984). In their survey study of 102 US VC companies, Macmillan et al. (1986) argue that the primary selection criteria of venture capital investors are characteristics of the entrepreneur rather than market- or product-related factors. On the other hand, findings of the subsequent study of MacMillan et al. (1987) do not provide support for the claim that managerial capabilities as the most important screening criteria would be a good predictor of portfolio company performance. MacMillan et al. (1987) asked 67 VC companies to rate 150 portfolio companies, both successful and unsuccessful, in terms of screening criteria. The main result of this study is that only two factors, ability to protect the portfolio company from competition and market acceptance of the product, consistently predict portfolio company success.

As these somewhat contradictory results indicate, earliest studies on the screening criteria used by VC investors can be considered somewhat biased as they often rely on interviews of VC investors themselves or survey data. By examining 51 US venture capital companies, Zacharakis & Meyer (1998) notice that VC investors stated decision policy (i.e. how VC investors think they choose their investment targets) differs from their actual decision-making criteria. According to Zacharakis & Meyer (1998), this finding implies that VC investors do not fully understand their own decision-making processes. However, authors note that although VC investors lack a clear understanding of their intuitive decision-making process, they still tend to make consistent investment decisions.

The second line of research tries to measure whether the superior performance of VC backed companies is due to screening ability of VC investors or value-adding activities provided by VC investors. For example, results of Engel & Keilbach (2007) imply that higher innovativeness of VC backed companies is due to screening effect rather than value-adding activities. As discussed in Chapter 2.2., they state that VC backed companies are more innovative than their non-VC backed peers already before the investment, which means that VC investors tend to invest in innovative companies.

On the other hand, Baum & Silverman (2004) argue that VC investors not only pick the most promising companies i.e. act as *"scouts"* but also act as *"coaches"* providing management expertise to their portfolio companies. Baum & Silverman (2004) study a sample of Canadian biotech companies and compare company characteristics that attract VC funding to those characteristics that predict future company performance. Key findings of aum & Silverman (2004) are that technological superiority is associated both with the likelihood to receive VC funding and future success while top management team characteristics, such as the size of the management team, that attract VC funding have no significant effect on future performance. According to Baum & Silverman (2004), results indicate that VC investors tend to choose technologically strong and strategically networked companies but may overemphasize human capital factors in their investment decisions. Authors analyse that VC investors may finance companies that have strong long-term prospects due to, for example, their technological superiority but require additional management expertise.

Findings of Colombo & Grilli (2010) support to some extent results of Baum & Silverman (2004). Colombo & Grilli (2010) studied a sample of 439 Italian companies that were established during 1980-1999 and were still operating in 2004. Similarly to the method of Baum & Silverman (2004), Colombo & Grilli (2010) compare those human capital characteristics of founder that attract VC investments to those that predict future growth. They find that those founder characteristics that predict future growth significantly differ from those that increase the probability of the VC investment. According to Colombo & Grilli (2010), this implies that the screening of Italian VC investor does not function properly either due to the lack of VC investors' screening ability or unwillingness of the most promising ventures to obtain VC financing. On the other hand, results of Colombo & Grilli (2010) support the *"VC investors as coaches"* hypothesis. Authors notice that those human capital characteristics of the founder that predict the growth of non-VC backed ventures do not indicate future growth when the company receives VC financing. According to Colombo & Grilli (2010), one explanation for this may be that involvement of the professional investor may be more beneficial for less experienced entrepreneurs.

Also results of Croce et al. (2013) provide support for the finding that in the European context, the coach function of VC investing may be stronger than the scout function. Authors of the study examine a sample of relatively young companies (i.e. less than 20 years old in 2010) in six European countries and show that before the VC investment, there are no notable differences in productivity growth between VC backed and non-VC backed companies. However, Croce et al. find that after the VC investment, the productivity growth of VC backed companies is significantly higher than that of the matched control group. Moreover, authors note the accelerated productivity growth of VC backed companies does not decrease after the VC exit implying that VC investments have a long lasting impact on productivity. These results mean that in terms of productivity growth, VC investors do not tend to choose the already top-performing companies. Instead, VC investments seem to promote productivity growth of funded companies during the investment period.

Sorensen (2007) provides another interesting viewpoint on the screening ability of VC investors by taking the experience of the VC company into consideration. The author examines VC investments in Massachusetts and California during 1982-1995 and finds that companies financed by experienced VC companies are more likely to experience a successful exit through an IPO. According to the author, this is due both to screening capabilities of more experienced investors and greater value added. Findings of Sorensen (2007) not only provide further information on the screening abilities of different types of VC companies but they also indicate that investors have heterogeneous skills that differentiate top-performing investors from their peers. This topic will be discussed in more detail in Chapter 2.4.3.

In sum, it can be concluded that ability of VC investors to assess their own screening criteria is somewhat limited. This does not, however, mean that VC investors would not make good investment decisions. In addition to screening effect, VC investors add value by *"coaching"* their portfolio companies during the investment. This finding is the motivation for the next discussed stream of research – value added through active ownership.

2.4.2. Value added through active ownership

This stream of literature studies non-financial services that PE investors offer to their portfolio companies. The list of studied activities is extensive including monitoring (Jensen 1989; Gorman & Sahlman 1989), strategic and operational advice (e.g. Sapienza et al. 1996; Bruining & Wright 2002), and professionalization of the company (Hellmann & Puri 2002). These non-financial services are the core of active ownership and hence the central topic in this thesis. The aim of the following paragraphs is to comprehensively and logically summarise the main findings of this line of research. For the sake of clarity, this chapter is divided into two subchapters in terms of investor type as studies on non-financial services provided by buyout and VC investors have somewhat different focuses.

2.4.2.1. VC investors as growth facilitators

Earliest studies that explore the value added by VC investors try to answer fundamental questions such as how VC investors are involved in their investments. Studies in this field include, for example, articles of MacMillan et al. (1989), Gorman & Sahlman (1989), Sapienza (1992), and Sapienza et al. (1996). These studies are typically conducted as survey studies in which respondents are investment managers of US-based VC funds, or in the case of Sapienza (1992) entrepreneur-CEOs of US-based VC backed companies.

The survey study of MacMillan et al. (1989) is one of the first pieces of research exploring value-adding activities of venture capital investors. MacMillan et al. (1989) argue that the most important non-financial services provided by VC investors are mainly related to finance, including, for example, monitoring of the financial performance and interfacing with the investor group. Authors of the study also identify three levels of investment but find no relationships between the improved performance of the portfolio company and the level of investor involvement.

Findings of Gorman & Sahlman (1989) support those of MacMillan et al. (1989). Gorman & Sahlman (1989 argue that approximately 60% of VC investors time is used for monitoring of portfolio companies, and that the most important role of the VC investor is to help the company raise additional funding. Authors also identify additional value-adding activities such as strategic and operational planning, recruiting of the management, introducing companies to new customers and suppliers and resolving of compensation issues.

Sapienza (1992) explore the CEO-VC relationship and the perceived value added of the VC involvement in the United States during late 1980s. He shows that the perceived value of VC involvement is higher if the CEO-VC relationship is conflict-free, the communication between the investor and the CEO is open and the company that received funding is involved in innovation activities. Sapienza (1992) also notices that higher perceived value added is positively associated with venture performance. However, based on this study, it is impossible to determine the direction of the perceived value-performance relationship: does higher perceived value affect good performance or does good performance improve perceived value?

Study of Sapienza et al. (1996) is special in the sense that it is one of the first cross-country studies in the field of private equity research. Sapienza et al. (1996) compare survey data from four countries, namely the US, the UK, Germany and France and find that level of involvement differs significantly between countries. The level of involvement and also the value added, which is measured as perceived importance of a certain role multiplied by the VC investor's perceived effectiveness in carrying out this same role, are highest in the US and the UK and lowest in France. Despite differences in the value added and extent of involvement across countries, VC investors in all four countries saw providing of financial and strategic advice and acting as a sounding board to the management as their primary roles.

More recent studies on value-adding services provided by VC investors include those of Hellmann & Puri (2000) and Hellmann & Puri (2002). These studies approach the topic from a more quantitative perspective. Both studies utilise a sample of 173 Silicon Valley –based start-ups. This data set combines survey data with interviews with key managers of these companies. Compared to earlier survey studies in this field, key advantage of this data set is richness of the data as well as the high response rate of 80% of the original survey that was sent to VC investors. Together these studies provide valuable and widely cited insights on non-financial services provided by VC investors.

In the earlier published piece of study, Hellmann & Puri (2000) find that innovative companies are more likely to receive VC funding, and that investor involvement is associated with shorter time to bring a new product to market. In addition, the study shows that this acceleration effect is intensified in the case of innovative companies. On one hand, the finding that innovative companies have a higher probability to obtain VC funding provides support for the earlier discussed screening capabilities of PE investors. On the other hand, the result that VC funding facilitates the commercialization of innovations implies that PE investors provide not only financing but also value-adding services that may have a positive effect on future performance. Besides accelerated commercialization, VC investors can also help young companies to professionalize their organizations. Hellmann & Puri (2002) argue that VC funding is associated with several professionalization measures such as adoption of a stock option plan. Hellmann & Puri (2002) also show that VC funding increases the probability that the company will replace the founder with an outside CEO.

Findings of Hsu (2006) indicate that VC investors also have a role as facilitators of cooperative activity in their portfolio companies. By comparing publicly funded and VC backed companies, Hsu (2006) shows that VC funding is associated with co-operative activity e.g. in R&D and increased likelihood of the IPO. However, the researcher notes that based on this single study, a causal relationship between VC funding and increased cooperation activity can not be established. For example, by referring to findings of Hellmann & Puri (2000), Hsu (2006) analyses that as VC companies tend to invest in innovative companies and innovation is associated with formation of alliances, increased post-investment cooperation activity may be caused by pre-investment innovativeness rather than influence of the VC investor.

Kaplan & Strömberg (2004) offer an additional viewpoint to the value added by VC investors. They study investment analyses and investment contracts of 67 VC backed companies from 11 VC investors during 1986-1999 and divide value-adding activities into intervening and supporting ones. Kaplan & Strömberg (2004) define intervening actions those that are likely to cause conflict between the VC investor and the management while supporting actions are those activities that are an unlikely source of conflict between the VC investor and the management. Kaplan & Strömberg (2004) find that the higher the board control of the VC investor, the higher the level of intervening actions. In contrast, the higher the equity stake of the VC fund, the more the VC investor provides supporting services.

In conclusion, earlier studies on value-adding services provided by VC investors indicate that in addition to financing, VC investors provide also non-financial support to their portfolio companies. This support, whether professionalization measures, strategic or financial advice or accelerated commercialization, seems to be aiming at enabling the portfolio company to achieve the expected fast growth during the investment period. Hence, based on the existing academic research, VC investors provide non-financial services that, in one way or another, facilitate growth, which further leads to successful portfolio company performance and investment case.

2.4.2.2. Buyout investors as promoters of efficiency and entrepreneurship

In his pioneering article, Jensen (1989) argues that the key value-adding mechanism in buyouts is decreased agency costs. Jensen (1989) proposes three main factors affecting this phenomenon – debt, active ownership through managing and monitoring of portfolio companies and equity ownership of the management. In conclusion, this traditional view on the value-adding mechanisms of buyouts emphasises increased efficiency in the portfolio company – a buyout investor removes inefficiencies by increasing monitoring and discipline, and aligning interests of the top-management team with those of owners.

Several researchers have suggested that besides efficiency, buyout investors may also facilitate growth in their portfolio companies. For example, studies of Wright et al. (2000), and Wright et al. (2001) present that while some buyouts inevitably promote increased efficiency, there are also those buyouts that foster strategic innovation. This way, buyouts can promote, for example, revitalization of more mature companies (Wright et al. 2000; Wright et al. 2001).

Studies of Bruining & Wright (2002) and Bruining et al. (2013) continue from the findings of Wright et al. (2000), and Wright et al. (2001). Bruining & Wright (2002) and Bruining et al. (2013) highlight the role of PE investors as promoters of entrepreneurial behaviour. Bruining & Wright (2002) use the concept of entrepreneurial orientation (EO), which, in this study, refers to the definition of Lumpkin & Dess (1996). According to Lumpkin & Dess (1996) an organization that possesses entrepreneurial orientation has five key characteristics – innovativeness, proactiveness, competitive aggressiveness, risk-taking and autonomy. Bruining & Wright (2002) analyse two MBO cases through the EO framework and find that case companies act more entrepreneurially after the MBO than before it. Researchers analyse that knowledge transfer, monitoring and networks are central mechanism behind increased EO.

Bruining et al. (2013) utilise the framework of entrepreneurial and administrative management conceptualised by Stevenson & Gumpert (1985) and later operationalized by Brown et al. (2001). Based on Stevenson & Gumpert (1985), entrepreneurial management is an opportunity-seeking management style that is not restricted by resources currently owned by the organization. The opposite of this management style is administrative management that is a set of more inward-focused management practices driven by resources currently controlled by the organization (Stevenson & Gumpert 1985). By comparing PE backed buyouts to non-PE backed buyouts in Netherlands, Bruining et al. (2013) find that after the buyout, PE backed buyouts experience significant increases in both entrepreneurial and administrative management practices. Researchers note that increase in administrative management is driven by high leverage, which is typical in PE backed buyouts.

In conclusion, both agency cost and entrepreneurship perspectives are relevant frameworks to examine non-financial services provided by buyout investors. Bruining et al. (2013) summarise well the interrelation of these two viewpoints: PE investors promote the development of ambidextrous organisations – organisations that are able to simultaneously seek growth opportunities and maintain a sufficient level of administrative management.

2.4.3. Investor characteristics and the impact on value added by private equity

While studies on the screening effect of PE investors focus on the question whether PE investors act as ‘scouts’, ‘coaches’ or both, and research on value added services tries to explain how PE investors are involved in the development of their portfolio companies, this line of research is interested in the question *why some PE investors are more successful than others.* More specifically, this research stream tries to find those investor characteristics that differentiate top-performing PE investors from others. Articles discussed during the next subchapter complement two other streams of value added studies, and provide novel insights on the value added by private equity.

Kaplan & Schoar (2005) provide evidence that PE investors differ in terms of value-adding capabilities. They compare average private equity fund returns with S&P 500 during 1981-2001 and notice that although the average fund return did not outperform S&P 500 during the sample period, there are large differences between the returns of individual funds. Kaplan & Schoar (2005) find that PE investors whose fund outperformed the market before are more likely to have a successful and larger fund in the future. This means that investor experience has a positive relationship with the fund performance and size. These findings imply that the qualities and skills of private equity investors differ. Kaplan & Schoar (2005) analyse that better funds may have skilled general managers who are able to provide value-adding services and/or have a reputation that enables them to pick the most promising companies with affordable deal terms.

The findings of Hsu (2004) support especially the latter viewpoint. He examines whether the reputation of the VC company affects the likelihood of the financing offer of the VC fund being accepted. Hsu (2004) claims that financing offers of highly reputable VC companies are significantly more likely to be accepted. In addition, the author states highly reputable VC companies are able to acquire the equity stake at a 10-14% discount. In other words, entrepreneurs are ready to pay for affiliation with a highly reputable VC company in order to either use this affiliation as ‘a certification of a high-quality venture’ or benefit from the value-adding services of the VC investor.

On the other hand, findings of Bottazzi et al. (2008) provide evidence that investor experience affects the value-adding services that the venture capital investor can offer. Bottazzi et al. (2008) analyse a sample of European venture capital deals and argue that prior business experience of the investment partner correlates positively with higher investor involvement, which in this study consists of recruiting of managers and board of directors, helping with fundraising and frequent interaction with portfolio companies. In addition, Bottazzi et al. (2008) find that active involvement of the VC investor is also positively associated with portfolio company performance.

Regarding buyout investments, the study of Acharya et al. (2013) supports the findings of Bottazzi et al. (2008). By comparing unlevered returns of LBO transactions in the Western Europe during 1991-2007 with those of quoted sector peers, Acharya et al. (2013) find that fund partners with operational experience (i.e. industry or management consulting) are associated with outperforming deals with the focus on internal value creation while partners with financial background (i.e. investment banking or accounting) are associated with outperforming deals with M&A focus. It should be noted that Acharya et al. (2013) focus purely on LBOs with large and mature PE firms involved and hence, their results can be interpreted as an extension to the results of Kaplan & Schoar (2005). Acharya et al. (2013)argue that M&A and operational expertise of partners allow large and mature i.e. more experienced PE firms to outperform the market.

An alternative explanation for the superior performance of some PE investors, is presented by Hochberg et al. (2007) who argue that better networked VC investors experience better fund- and company-level performance. They study a sample of venture capital deals by US investors during 1980-1999 and measure fund-level success as a successful exit through IPO, or sale to another firm is used as a proxy for fund level performance while company-level performance is operationalized as survival to another funding round and eventual exit. Hochberg et al. (2007) find that considering investor network measures such as the size of the network, tendency to be invited to other investors' syndicates and access to the best-networked VC investors are positively associated with better fund- and company-level performance.

In sum, it can be concluded that not all PE investors are similar; they have different backgrounds, capabilities and statuses. Past experience and capabilities may allow more experienced fund managers to provide superior value-adding services to their portfolio companies. On the other hand, a highly reputable PE company is also a certification of the venture's quality, and a desire to affiliate with a reputable VC may result to more affordable deal terms for the investor. Besides experience and reputation, networks of individual PE investors may facilitate knowledge diffusion and provide competitive advantage for those PE investors who are part of these networks.

2.5. Summary of the literature review and research questions

The aim of this literature review is to answer the question "*1) What are the value-adding mechanisms through which private equity investors contribute to the performance of their portfolio companies?*" Based on the existing academic research, value-adding mechanisms of private equity differ between buyout and venture capital investors. Venture capital investors add value by monitoring and mentoring their portfolio companies, professionalizing company policies and decreasing product-to-market-time. In contrast, buyout investors remove organizational inefficiencies by monitoring and aligning incentives of the management with those of owners. Furthermore, buyout investors promote growth-seeking behaviour in established companies.

Although private equity is widely studied topic in the academic research, these above-discussed findings have not yet been verified in the Finnish context. In other words, research on the value added by Finnish PE investors is still quite limited. This notion leads to the following research question:

> *2) How have private equity investors used value-adding mechanisms in order to contribute to the operational performance of their Finnish portfolio companies?*

Furthermore, findings of existing academic literature imply that investor characteristics affect the value added by private equity. Investor characteristics seem to affect the investor's ability to both find new investment targets and provide non-financial services during the investment. The current academic research is rather focused on measuring the relationship between some individual characteristic, such as operational experience, and portfolio company performance. However, it is unlikely that the pure amount of some individual investor characteristic (e.g. the amount of experience) would always yield positive portfolio company performance. As a consequence, a more fine-grained approach on the topic is required. This study explores which types of investor characteristics and combinations of characteristics are associated with positive portfolio company performance in the Finnish context. Hence, the third research question is the following:

3) *How do investor characteristics affect value added by private equity?*

Finally, the impact of industry on value added by private equity is relatively little studied topic in the private equity research (see Valkama et al. 2013 and Guo et al. 2011 for exceptions). An interesting question from the value-adding mechanisms perspective is whether PE investors adjust their involvement according the industry of the portfolio company. The fourth research question is as follows:

4) What is the role of industry characteristics on value added by private equity?

3. Methods

3.1. Methodology

Despite the substantial amount of academic literature on the impact and value added of private equity, deeper value-adding mechanisms of private equity are not yet thoroughly understood. Considering the novelty of the research subject and the explanatory nature of the research question "*How* do private equity investors contribute to the performance of their Finnish portfolio companies", case study is the most appropriate research methodology for this study (Eisenhardt 1989; Yin 1994). Considering the research problem, a multiple case study is more suitable methodology than a single case study as it allows comparison between cases and, in the best scenario, reveals systematic patterns across cases. At best, this methodology can produce novel insights on the studied phenomenon and testable propositions for further research. (Eisenhardt 1989).

The core of the multiple-case study is that it utilises replication logic i.e. treats different cases as distinct experiments. The aim of replication is to improve the analytical generalizability of the results. (Yin 1994) As a consequence, the purpose of the case study is not to test hypotheses and provide statistically significant results but to produce theoretically meaningful insights on the studied phenomenon (Eisenhardt & Graebner 2007). In addition, it should be noted that this methodology is highly iterative in nature, which means that analysed data and initial results are constantly compared with original propositions and findings of the existing academic literature (Eisenhardt 1989).

The traditional case study method is further supported by a set-theoretic method called fuzzy-set qualitative comparative analysis (fsQCA). The fsQCA method aims at finding combinations of causal conditions that lead to a certain outcome. The key advantage of fsQCA is that while examining causal recipes, it takes the complexity of the phenomenon into account; a certain outcome can be produced by several different configurations. Hence, the method bridges the gap between inductive, small-N qualitative approach and large-N, quantitative methods. (Ragin 2000) In this study, fsQCA examines the potential impact of investor expertise and environmental factors on case company performance.

Considering the research problem, the most natural unit of analysis for this study is the post-deal development of Finnish companies that have received private equity funding. To ensure the topicality of the results, the time frame of the potential cases was limited to those companies that had received private equity funding during 2007-2011.

3.2. Case selection

As suggested by Eisenhardt (1989), cases were chosen by following theoretical, not random sampling. This means that cases were chosen deliberately and the sample includes cases, which are, for example, extreme examples of the studied phenomenon or fill theoretical categories that emerge from the existing academic research (Eisenhardt & Graebner 2007). Theoretical sampling allows us to utilise the above discussed replication logic i.e. compare what type of outcomes different investor-company configurations have produced.

Based on findings of the existing research, relevant theoretical categories that were used in the sampling are the type of funding the company has received, investor experience, industry of the company and post-deal performance of the company (in terms of 3-year sales CAGR[1] after the investment). An ideal situation would be that one would have 24 cases that all present different configurations of sampling dimensions. In practice, cases were selected so that the final sample would include as diverse group of case companies as possible across these four dimensions. ***Table 1*** summarises categories used in sampling and related literature.

[1] CAGR= compound annual growth rate. Calculated as $\sqrt[3]{\frac{Revenue\ in\ year\ 3}{Revenue\ in\ year\ 0}} - 1$

Table 1. Sampling dimensions.

	Portfolio company industry	Post-investment performance	Type of fund	Experience
Dimensions	Various industries	High growth vs. low growth	Buyout vs. VC	Operational vs. financial Long vs. short
Why the category is relevant?	How external factors affect the value-adding mechanisms of private equity?	How successful cases differ from others in terms of value-adding mechanisms?	How buyout and VC investors differ in terms of investor involvement?	How investor characteristics affect the value added by private equity?
Examples of related literature	Guo et al. (2011) Valkama et al. (2013)	Macmillan et al. (1989) Sapienza et al. (1996)	Wright et al. (2000) Hellmann and Puri (2002)	Kaplan and Schoar (2005) Bottazzi et al. (2008)

Cases were selected by using the combination of bottom-up screening and discussions with industry experts. Main data sources in the screening phase were the data set collected by Alén (2012) and publicly available secondary information, such as news releases of private equity companies. The result of this screening was a long list of potential cases, which was further discussed with the members of the research committee of the Finnish Venture Capital Association. Based on these discussions, the scope of the study and the list of cases were further iterated.

Considering investor experience, it should be noted that cases were selected based on the experience of the PE company rather than that of an individual investment manager. However in the analysis phase, the data revealed that experience of, and further expertise and contacts provided by, the investment manager played much more important role than, for example, the age or size of the PE company. In addition, the final sample includes a smaller number of 'zero-growth' cases than initially planned due to reluctance of some investors to give an interview about more challenging cases. The final case list includes in total 15 cases from various industries and with varying investors, post-deal growth strategies and performances. ***Table 2*** and ***Table 3*** summarise the key characteristics of the final sample.

Table 2. Sample summary: investment types and post-investment performance.

Case ID	Type of investment	3-year revenue CAGR after the first investment
A	Buyout	154%*
B	Buyout	125%*
C	Buyout	0%
D	Buyout	54%
E	Buyout	37%
F	Buyout	-4%
G	Buyout	31%
H	Buyout	83%
I	Buyout	-5%
J	VC	87%
K	VC	76%
L	VC	21%
M	VC	84%
N	VC	23%
O	VC	54%*

*)2-year CAGR

Table 3. Sample summary: descriptive statistics.

Type of investment	Number of cases
Buyout	9
VC	6
Industry	
Business and industrial products	1
Business and industrial services	2
Other manufacturing	1
Business and industrial related industries in total	4
Broadcasting, publications and content	1
Consumer products	1
Other consumer services	1
Retail	1
Consumer related industries in total	4
Business related software	4
Computers and peripherals	1
Other software	1
Telecom services	1
ICT and software in total	7
Work experience of the investment manager at the investment year	
Less than 10 years	3
10-20 years	9
More than 20 years	3
Post-investment 3-year revenue CAGR	
Less than 10 or equal to 0%	3
1%-25%	2
26%-50%	2
51%-100%	6
More than 100%	2

3.3. Data collection

The main data sources of this study are interviews with investment managers and CEOs of case companies. The total number of interviews is 23 and on average one interview lasted approximately 45 minutes. 5 out of 8 interviews with CEOs were conducted already before this study by FVCA. However, as these interviews discussed the same topics as this study, they were considered as highly relevant data sources and included in the analysis. ***Table 4*** summarises conducted interviews in each case. In addition, all interviewees were asked to answer a short survey considering their perceptions about the rate of change and uncertainty of the industry in which the case company operates. Considering this survey, data was obtained for 11 out of 15 cases.

Table 4. Primary data sources.

Case ID	Representative of the PE company interviewed	CEO interviewed	+CEO interviews conducted by the FVCA
A	X	X	X
B	X		
C	X		
D	X		
E	X		X
F	X		
G	X		
H	X		
I	X		
J	X		X
K	X		X
L	X		
M	X	X	
N	X		
O	X	X	X
Total	15	3	5

In addition to interview data, secondary sources were utilised in order to acquire complementary information on case companies. Financial performance data, including sales, EBITDA and EBIT figures three years before and three years after the first PE investment, was acquired from Bureau van Dijk's Orbis database. Information on financing rounds was collected from VentureXpert database provided by Securities Data Company. Furthermore, information on the prior work experience and length of the career in private equity of investment managers was collected from company web pages, Linkedin and Bloomberg Businessweek.

3.4. Data analysis

The data was analysed by using two complementary techniques. First, a traditional case study was conducted. In addition, two interesting themes that arose during within- and cross-case analyses were studied in more detail by using a fuzzy-set qualitative comparative analysis (fsQCA) technique. This combination of techniques allows a more rich and comprehensive overview of the topic. During the next two subchapters, both techniques will be discussed in more detail.

3.4.1. Within-case and cross-case analyses

In the first step of the data analysis phase, all interviews were recorded and field notes of cases, which summarise the initial impressions about cases, were written within 24 hours after each interview. This '24-hour rule' ensures that data analysis and collection are overlapping and complementary rather than separate processes (Eisenhardt 1989). In addition, all interviews were transcribed as soon as possible and open coding of transcribed interviews was started already in the data collection phase. In other words, the data collection and analysis phases were partly overlapping processes.

The first step of the actual data analysis was within-case analysis. First, all data was collected into one place by using the qualitative data analysis software, ATLAS.ti. After that, all cases were analysed separately and initial propositions developed. This step also included open coding of the interview data. After this within-case analysis, cases were compared with each other. The aim of this step was to find similarities and differences in investor involvement and resources provided by PE investors across cases. In this phase, initial findings were also compared with insights presented in the existing academic literature in order to find meaningful patterns from the data (Eisenhardt & Graebner 2007).

3.4.1. Fuzzy-set qualitative comparative analysis

fsQCA is an analysis technique and a methodology that utilises set-theoretic approach while trying to find combinations of causal conditions that lead to a certain outcome. In fsQCA, data consists of several cases or configurations (N = 8 or more) that all have some set membership among pre-defined causal conditions. The prefix 'fuzzy-set' means that besides representing fully or not at all some causal condition (e.g. VC backed vs. non-VC backed company), a case or a configuration can represent the causal condition to some extent (e.g. the amount of work experience in private equity in years). (Ragin 2000) In this study, fsQCA was utilised for examining which investor and industry characteristics were associated with positive portfolio company performance.

The motivation for examining the relationship between investor characteristics and company performance is that several interviewed investment managers mentioned their own expertise and outside contacts as resources provided to portfolio companies. Moreover, industry characteristics were seen as a relevant dimension to be studied further as interview data revealed that perceived dynamism of the industry affected how PE investors saw the role of strategic planning in their portfolio companies. Furthermore, interviewed investment managers mentioned strategic positioning and, on the other hand, ability to change strategic direction when required as important sources of value.

Typically, one piece of research includes only one fsQCA algorithm. However, this study includes two separate analyses instead of one. The main reason for this is that due to the relatively small sample size, addressing effects of both investor and industry characteristics on value added by private equity in one analysis is not feasible. According to Ragin (2008), the number of causal conditions should be kept moderate, preferably between three and eight. As this study explores the effect of both investor and industry characteristics, the number of causal conditions in one analysis would easily have been 6-8. Given the relatively small number of cases, the maximum number of causal conditions per analysis in this study is three or four. Thus, this study includes two fsQCA analyses that examine the same phenomenon through different lenses – one from the perspective of investor characteristics and another from environmental perspective. These analyses provide two complementary views on the value added by private equity. It should, however, be highlighted that if the sample size was larger, one fsQCA algorithm instead of two would have been a preferable alternative.

The fsQCA analysis was conducted by using fs/QCA software package (http://www.u.arizona.edu/~cragin/fsQCA/software.shtml). The analysis process consisted of three distinct steps: defining of set membership scores i.e. calibration, truth table analysis and final solutions. The first step, calibration, means that degrees of set membership of each causal condition (in a scale of 0=no membership to 1=full membership) are decided and calculated for each configuration (Ragin 2009). In practice this means that values of full membership, no membership and 50% membership are decided and justified for each condition after which the calibration algorithm is executed by using the fs/QCA software package.

The second step of the analysis, the truth table, lists all possible combinations of causal conditions. For example, if one has three causal conditions the number of possible combinations is $2^3=8$. In order to obtain final solutions, those configurations that do not include any cases that achieve the desired outcome are deleted from the truth table. In addition, also those combinations that do not achieve the threshold consistency are removed. (Ragin 2009) Consistency is a central indicator in fsQCA, and Ragin (2006) defines it as *"degree to which the cases sharing a given condition or combination of conditions … agree in displaying the outcome in question"*. In other words, consistency is high/equals 1 if the presence of the condition is often/always associated with the outcome. According to Ragin (2008), for small N, the minimum consistency should be at least 75%-80%. This guideline was followed also in this study.

Finally, the modified truth table is used for formulating final solutions – those combinations of causal conditions, or causal 'recipes', that produce the pre-defined outcome. An individual condition can be either a core or peripheral causal condition for the studied phenomenon. According to Fiss et al. (2011), core conditions have a strong causal relationship with the outcome while the relationship, based on the data, is weaker for peripheral conditions. The fs/QCA software produces two key solution tables, namely intermediate and parsimonious solutions. The parsimonious solution includes only core conditions while the intermediate solution includes both core and peripheral conditions. Solutions are typically summarised in a solution table. ***Table 5*** provides an illustrative example of the solution table (see also Fiss et al. 2011 for an example).

Table 5. Example of the fsQCA solution table.

	S1	S2	S3
Condition 1	-	●	⬤
Condition 2	⨂	-	⬤
Condition 3	⊗	⬤	⊗
Condition 4	⬤	⊗	-
Consistency	[number]	[number]	[number]
Unique coverage	[number]	[number]	[number]
Raw coverage	[number]	[number]	[number]

Consistency cutoff	[number]
Total solution consistency	[number]
Total solution coverage	[number]

Explanations
S1, S2 & S3 = causal recipes
Large circle=core condition, small circle=peripheral condition
Black circle=condition present, circle with X=condition absent

As can be seen in ***Table 5***, in addition to consistency, there is another key metric, coverage, that indicates the quality of the solution in fsQCA. Coverage and solution coverage measure how large share of the total sample an individual solution and the set of solutions explain the studied phenomenon (C. C. Ragin 2008). High consistency implies that the condition is necessary for the outcome while high coverage means that the condition is sufficient for the outcome (Ragin 2009). It should be noted that, consistency and coverage often form a trade-off. According to Ragin (2006), a sufficient level of consistency should be ensured before trying to maximise coverage as high coverage is irrelevant if the solution is not consistent.

In this study, fsQCA method was used for theory building rather than hypothesis testing purposes. Although the above-described methodology may look straightforward, it should be noted that, like the study in general, also the fsQCA phase of the study was an iterative process. First, within-case and cross-case analyses provide initial combinations of possibly relevant conditions, which are analysed by using the fsQCA software. After that, results of the fuzzy-set analysis are again compared with within- and cross-case analyses and theoretical propositions are further developed. This cycle is repeated until the results of the fuzzy-set analysis and cross-case analysis sufficiently capture the essence of the studied phenomenon.

4. Results

This chapter presents the key results of this study. First, I will summarise the most common ways in which investors of case companies participate in the development of their portfolio companies. In addition, I will discuss whether PE investors, through active ownership, can promote entrepreneurial, opportunity-seeking management style and, on the other hand, also more formalised management practices in their portfolio companies. In the second part of this chapter, fsQCA is utilised in two cross-case analyses. The first analysis studies the effect of investor experience on portfolio company performance while the second one discusses the relationship between industry dynamism and approach on strategic planning.

The main finding of this chapter is that by adaptively using tools of active ownership PE investors are able to contribute to the development of their portfolio companies. PE investors are professional risk-takers who, in the best scenario, take into account the life stage and industry characteristics of the portfolio company and are able to balance between promoting of risk-seeking behaviour and providing of risk-mitigating measures. In addition, successful PE investors are able to identify their own areas of experience and recruit outside board members with relevant, complementary experience and networks. As a consequence, PE investors have an important role as growth facilitators in Finnish companies.

4.1. Non-financial services provided by Finnish PE investors

Besides financial support, Finnish PE investors take an active role in the development of their portfolio companies. Based on data, the most typical non-financial services provided by Finnish PE investors are presented in ***Table 6*** below.

Table 6. Typical forms of investor involvement and related objectives.

Activity	Potential objectives
Change the composition board of directors and develop board work practices	-Improve accountability -Provide support for the top-management team
Systematize performance monitoring and set performance targets	-Improve accountability
Participate in the development of the top-management team[2]	-Revitalize the company -Professionalize the company
Participate in strategic planning	-Create a new strategic direction -(Re)focus or refine the strategy
Participate in decision-making and execution of significant investments such as acquisitions or investments in production capacity	-Mitigate risks -Enable risk-taking -Provide support for the top-management team
Act as a sounding board, spar and mentor the CEO	-Provide support in day-to-day problems -Provide support during intensive strategic changes
Represent the company together with the top-management team	-Provide legitimacy in the eyes or external stakeholders such as debt and equity providers and potential customers

All of the above-presented activities are to some extent present in all 15 cases. Thus, it would be unreasonable to argue that the pure existence of some specific non-financial

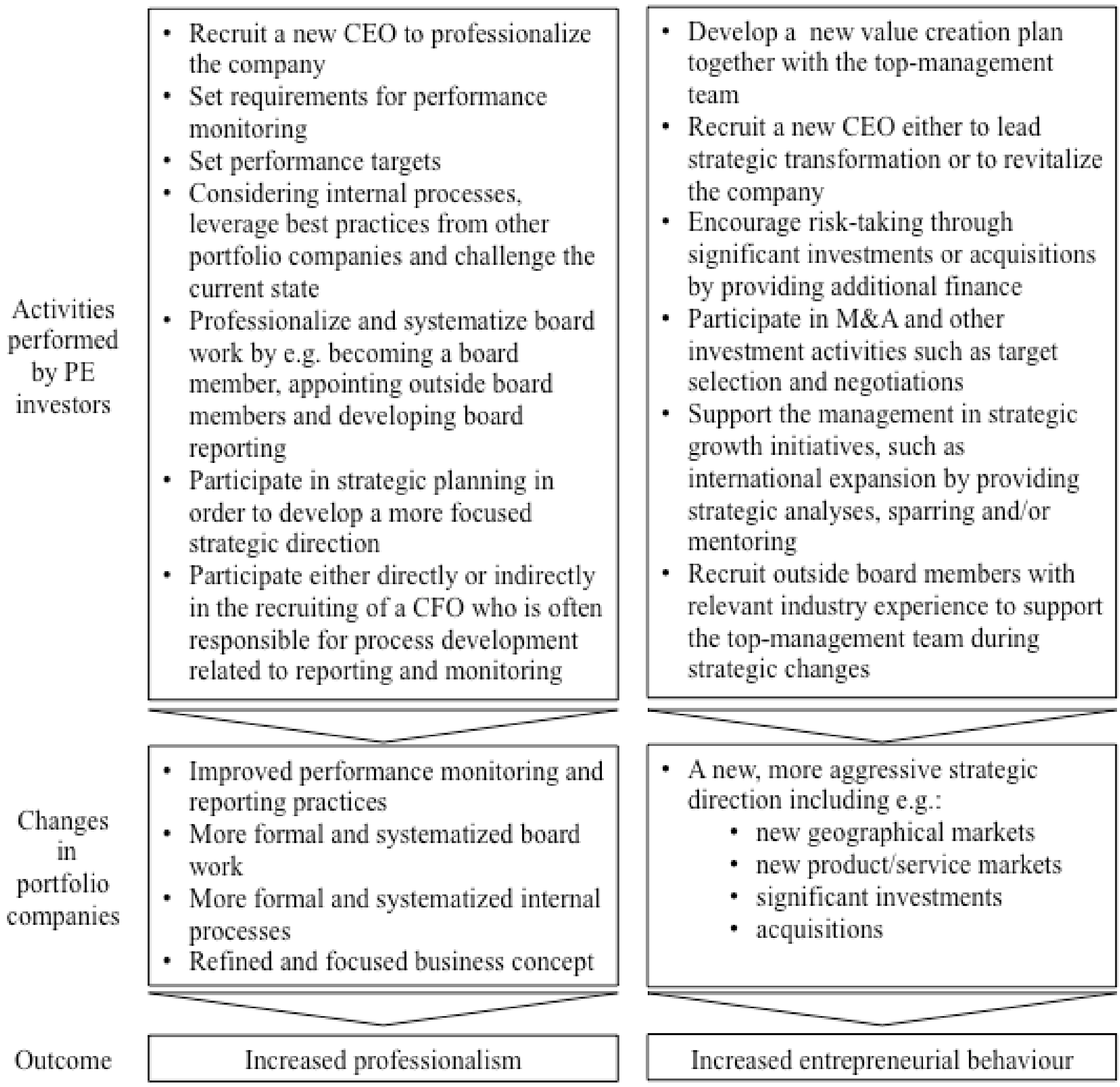
[2] This activity may include participation in the recruitment of various members of the top-management team. However, recruiting of the new CEO is the single most visible form of this type of activity and it is difficult to assess to what extent different PE investors are involved in the recruitment of other key managers (who are direct sub-ordinates of the CEO and hence ultimately recruited by the CEO rather than the PE investor). Hence, further chapters will mainly discuss recruiting of a new CEO as a way to revitalize or professionalize the company.

service, such as improved monitoring or involvement in strategic planning, would be value adding itself. What seems to be more important is the objective to perform certain activities. For example, based on the interviews PE investors recruit a new CEO in order to achieve one of the two distinct desired outcomes, professionalization or revitalization of the organization. Hence, the act of recruiting a new CEO is not value adding itself, but the value added comes from the ability to recruit the most suitable person i.e. the person who is able to contribute to the desired outcome. In conclusion, I argue that the value added by the private equity investor depends on the situation of the portfolio company and the ability of the PE investor to use suitable value-adding tools in each situation.

4.1.1. PE investors as professional risk-takers

In order to examine which mechanisms add value in which company-investor configurations, it is useful to categorise activities and their objectives presented in ***Table 6*** in a meaningful way (Eisenhardt 1989). By analysing reasons to provide non-financial services in various situations, a categorisation of investor activities into those that promote entrepreneurial behaviour and those that professionalize the organization emerged as the most suitable framework. This way non-financial services and their objectives presented in ***Table 6*** can be divided into two distinct groups. First, some activities, such as developing monitoring practices in order to improve accountability, seem to make the organization more structured and hence reduce risks associated with expanding the business. On the other hand, for example, development of a new industrial vision that significantly differs from the current strategic direction can be considered to promote entrepreneurial, risk-seeking behaviour. ***Figure 4*** summarises this categorisation.

Figure 4. Categorisation of non-financial services provided by Finnish PE investors.



As ***Figure 4*** shows, a certain non-financial activity such as involvement in strategic planning or development of the top-management team can promote either entrepreneurial behaviour or professionalization in the portfolio company. Hence, it is the content of the non-financial service, which defines whether the involvement of the investor promotes entrepreneurial, risk-seeking behaviour or more structured and systematized approach on business. In addition, as will be discussed during the next chapters, the current situation of the portfolio company further defines whether a certain type of investor involvement is value adding or not. For example, investor involvement in the development of internal processes, such as monitoring practices, was considered valuable by the interviewed CEOs of young ventures. On the other hand, several interviewed investment managers mentioned that as the portfolio company becomes more professional, this type of involvement becomes unnecessary.

Considering the existing academic literature, the concept of entrepreneurial orientation by Miller (1983) is to a large extent analogous to those non-financial services that promote entrepreneurial behaviour. As discussed in the literature review, impact of buyouts on entrepreneurial orientation has been discussed also in the existing academic research on value added by buyouts (see e.g. Bruining & Wright 2002; Bruining et al. 2013; Wright et al. 2001). Considering those investor activities that promote professionalization, agency-theory perspective on buyouts supports the view that buyout investors aim at increasing efficiency in their portfolio companies (Jensen 1989). Furthermore, the idea that venture capital investors promote professionalization in their portfolio companies has been previously presented by Hellmann & Puri (2002). Results that will be discussed in the next-subchapter provide a complementary view on the non-financial role of private equity and show that i) both buyout and VC investors can promote entrepreneurial behaviour and professionalization in their portfolio companies and ii) successful PE investors are able to balance between entrepreneurial, risky activities and risk controlling measures.

4.1.2. Theoretical framework of non-financial services provided by Finnish PE investors

The categorisation of non-financial services presented above can be used in the coding of interview data. In other words, quotes that refer to, for example, increased risk-taking in the portfolio company, recruitment of the new CEO to revitalize the organization/to lead a strategic growth initiative and the role of the investor as a developer of the original, new industrial vision are coded as *'PE investor promotes entrepreneurial behaviour"* while those quotes that indicate that the investor has, for example, contributed to improved monitoring practices and/or board work and recruited a new CEO to professionalize the company are coded as '*PE investor promotes* professionalization'. This way, case companies can be divided into two groups – those in which the PE investor has focused on promoting entrepreneurial behaviour and those in which the PE investor has focused on promoting professionalization of the organization. It is important to note that the categorisation into these two groups is based on *the focus* of investor involvement as all investors in the sample seem to, at least to some extent, promote both types of development. By using this categorisation and by taking into account that buyout and VC investors focus on fundamentally different types of companies, the sample can be divided into four groups based on investor type and the focus of investor involvement. This framework is illustrated in ***Figure 5***. In addition, ***Table 7***, ***Table 8***, ***Table 9*** and ***Table 10*** present how cases are assigned to each group.

Figure 5. Theoretical framework of non-financial services provided by Finnish PE investors.

	Focus of investor involvement	
	Focus on promoting entrepreneurial behavior	Focus on professionalisation
Buyout	Group 1 Cases in the sample: A, C, D, E, F, H, I	Group 2 Cases in the sample: B, G
VC	Group 4 Cases in the sample: J	Group 3 Cases in the sample: K, L, M, N, O

These four types of cases differ in terms of investor involvement and further in terms of value-adding mechanisms of private equity. During the next sub-chapters, these four groups will be analysed in more detail and based on these analyses, propositions on value-adding mechanisms for each group are developed.

Table 7. Focus of investor involvement, cases A-D.

Case ID	A	B	C	D
Type of investment	Buyout	Buyout	Buyout	Buyout
Focus of investor involvement	Both entrepreneurial behavior and professionalization	Mostly professionalization	Mostly entreprenurial behavior	Both entrepreneurial behavior and professionalization
Illustrations	"What [PE company] brought was the industrial vision to build this type of an entity. [PE company] supported the management, together with management scouted and found good acquisitions targets and acquired financing for acquisitions. [PE company] acted as a growth engine" -CEO "When we acquired these two platform companies, our first step was to recruit external board members and the management team. ... (Our role was to) recruit them and justify to entrepreneurs ... why this makes sense, why this is needed." -Investment partner "When building a larger entity, one risk is that we will bring only bureaucracy and reporting. Although these kinds of things are necessary, they can also kill entrepreneurial attitude, hard-working atmosphere and growth-oriented culture." -Investment partner	"They (the management) surely had a general idea that next to us is an economy that is twice as large as ours and the market for [their product] is probably large. However, no one actually understood whether it really is a good market to enter and why it would be and why it wouldn't be. ... We decided to do a market research and when it showed that we should enter the market, we started to think how to enter and what we should do there. We (the investor) acted as a sparring partner to the team and the project leader when the actual market entry started after the summer of 2012." -Investment manager "Besides internationalization, I think that the company has entered the next phase of development ... From the customer perspective, the company is now more professional. Also in terms of organization and concept, one person is not anymore responsible for everything but responsibility is now divided between different persons and organizational levels" -Investment manager "The company did not have a board of directors before our investment. The CEO was the board. I think that this has been rewarding for all of us, and also the operating management appreciates the support and mentorship of the board" -Investment manager	"Despite it (challenging market situation) we have been able to realise the original plan to consolidate the industry ... and to expand the company in Sweden." -Investment manager "The starting point is that the fundamental operating model has not changed significantly, excluding expansion of business through acquisitions and expansion in the Swedish market. I think that these expansion efforts would have happened at least at a slower pace without our involvement. In addition, there is one strategic decision related to our production structure that may not have happened without our involvement" -Investment manager "Board work changed less than in our other portfolio companies. In this case, the company already had the board of directors and regular board work. Typically, companies in which we invest do not have the board of directors - or if they have, it exists only in paper." -Investment manager	"[The first CEO] had sold majority of his ownership to [large Finnish media company] but remained as the CEO of the company. The company was the leading operator in the industry in Finland. However, it was clear that [the CEO] wanted to be involved in a more entrepreneurial, and especially in a more growth-oriented project" -Investment manager "It was quite a difficult structure (i.e. formerly independent entrepreneurs were now a part of the larger organization but still significant minority shareholders in the company). That's why one had to choose a CEO who does not only lead by facts but who is also diplomatic, has natural charisma and builds trust while at the same time looks after all these subsidiaries." -Investment manager "In this case one clear value creation path is that small, local [companies] are in a creative industry and people are creative but project management may not be at the same level with other industries. ... Development of that (project management) and development of it systems and reporting so that there would not be many surprises when you make 20 projects per year. And of course, considering performance monitoring ... we have ready value creation templates or best practices, which were carried through also. " -Investment manager

Table 8. Focus of investor involvement, cases E-H.

Case ID	E	F	G	H
Type of investment	Buyout	Buyout	Buyout	Buyout
Focus of investor involvement	Both entrepreneurial behavior and professionalization	Both entrepreneurial behavior and professionalization	Mostly professionalization	Both entrepreneurial behavior and professionalization
Illustrations	"Our strategy was three-sided ... One (thing) was that foundations (of the company) had to be built ... We started by recruiting a new CEO. Then there was quite a lot of development work related to it systems, reporting and management systems that had to be done." -Investment partner "We didn't execute a development vision of the old owner or the old operating management .... In this case, we did our own thing, a plan about what should be done in this company. Then we just ensured that we will be able to realize that (plan)." -Investment partner "It was clear that the entrepreneur, who sold his ownership in this transaction, is not the person who takes this (company) to the next level. ... We had a clear vision that this (company) needs a new management." -Investment partner	"The idea started when the CEO, I and one external board member sat down in August 2010 and noted that [the industry] will be down for so long that we don't have time or need to wait for that (growth of the industry). We considered what resources we had ... First, it was brainstorming, we considered what we could do with those capabilities that we had. Then we made a list of about ten different possible options. ... Finally, we had a couple of options from which we chose [the new business] ... The starting point was that we will not give up, this is not over." -Investment partner "One significant aspect on which we focused and which we achieved in the company was the development and finalizing of the turn-key business concept so that it was as cost effective as possible. And also all the sub-functions such as sales, manufacturing, installation, administrative routines or finance. That concept was refined and finalized." -Investment partner "We provided them with the support to make radical decisions and relatively significant investments. I guess that these guys felt somewhat more safe and were not afraid to make these kinds of larger financial decisions due to our involvement" -Investment partner	"I feel that the company has always been ambitious in terms of sales, they have a very strong sales organization. In that sense, we did not have much to give. But considering profitability, I feel that the change in profitability monitoring and requirements was quite significant" -Investment partner "I would say that after our investment the company had a real board of directors for which the management had to report. ... We had once a month a board meeting for which the management prepared reports and presentations. I feel that this kind of shape up was the foundation for everything. Now [The company] was managed like a real company. And this does not mean that it had not been managed well before us, but I guess it became more conceptualized, more focused" -Investment partner	"One important thing (milestone), if we talk about [the company] has been the development of the growth strategy. There were two small companies that were merged in the beginning. One had more established position in the market and another one was an early-stage company that, however, had the offering and idea that suited industry trends. An important thing in that (case) was definitely the development of the mutual strategy, what we want to do, certain choices related to for example technology platforms and key customer segments and these types of things." -Investment partner "Often in companies of this scale, it is not clear what is the role of the board, what is the role of the CEO and what is the role of the management team. They (roles) are quite mixed. And when we invest in the company, these are things that we aim to clarify. That the board makes strategic decisions. Of course, they (strategic decisions) are based on proposals prepared by the management team or the management team and us. But those decision are made in the board and the management manages the company." -Investment partner

Table 9. Focus of investor involvement, cases I-L.

Case ID	I	J	K	L
Type of investment	Buyout	VC	VC	VC
Focus of investor involvement	Both entrepreneurial behavior and professionalization	Mostly entrepreneurial behavior	Mostly professionalization	Mostly professionalization
Illustrations	"Considering [the company], there was the ambition to internationalize the business. But that (internationalization) had not proceeded much, and it (internationalization) did not proceed during our ownership either. However in that case too, focusing of the strategy was one important thing (milestone)." -Investment partner "In this case, one fairly good example is how difficult it would had been to become a part of a publicly listed company without the development of corporate governance stuctures and reporting practices during our ownership. Although they still have work to be done in this sense, I think that this is one aspect that has had an impact on the company" -Investment partner "They, in theory, had quite good reporting practices and so on. But board work focused mainly on discussions about operational aspects. In this case, we aimed at change that (board work) into the mode in which the board would discuss more about startegic issues and operational decisions would be made purely by the operational management. Considering reporting, we had certain requirements and afterwards, the CEO had said that 'thank god, there was this step' because now it (the company) is a part of the publicly listed company, and publicly listed companies are even more demanding in these issues. Without this step it would have been very difficult to adapt to this world (where the company is a part of the publicly listed company)." -Investment partner	"And at some point we noticed, and it is no surprise, that we need new ways of thinking and doing things. ... Then we decided that now is the right time to find a new CEO who can bring in new blood and energy, new ideas and new ways of working." -Investment partner & co-founder "In order to launch the business, an initial funding of just over million euros was needed. … It (funding) enabled us to have about 20 employees from day one. Without the initial funding, it (the business) would have been quite impossible to launch because our customers are quite demanding. They demand credibility, best sponsors and (best) people. … Otherwise, they don't trust that they will get all the required help and hence, they will not be willing to pay for it (the service)." -Investment partner & co-founder	"It (board of directors) did not exist before (our investment). There were two guys who founded the company in a garage. ... It (the investment) surely changed it (board work), because there was no board of directors." -Investment partner "Yes, we have been (involved in the development of internal processes), especially in the beginning when they did not exist, they had to be developed. ... Nowadays, the process runs and one can not and should not intervene in the same way (than before). If you want to change (processes) now, you should hire a real expert for that. Of course we can provide best practices (from other portfolio companies)." -Investment partner	"We are involved in planning on how the company can reward its employees or how the organisation is managed and what tools (can be used). We have a long experience and are able to benchmark (the company) against other (portfolio) companies." -Investment partner "Considering expansion efforts, the role of the board is to sharpen the focus. Many entrepreneurs and companies want to conquer the whole word right wawy, send one guy there and another there. But I have never seen that this would have been a successful plan. We have abandonded many expansion plans as we have wanted to focus on one or two segments." -Investment partner "Due to the new CEO and due to the (external) investor, (the company) has become much more structured. [The company] has changed tremendously from a start-up to a real company with own processes and H&R function." -Investment partner

Table 10. Focus of investor involvement, cases M-O.

Case ID	M	N	O
Type of investment	VC	VC	VC
Focus of investor involvement	Mostly professionalization	Mostly professionalization	Mostly professionalization
Illustrations	"In the beginning, they (investors) were expectionally active in aspects related to running the business. They clearly saw that we understood and still understand our market and market dynamics better than anyone in the world. ... We had just entered the market and probably our greatest weaknesses were related to governance sturctures and basic corporate infrastructure. So, [the VC] as an active guy took quite an active role in these things - both in good and bad. Afterwards, it was definitely a good thing, but at that time it did not always feel like that." -CEO "Nowadays, it (role of the VC) is very interactive. When the business is at the normal state, it is mainly communication through the board of directors, which means that venture capitalists, including [the VC] has more to say about long-term plans. Still, it focuses more on financials, more on numbers than the content behind those numbers. But it is more controlled, it is a part of a structured process - budget approval and further the approval of long-term plans" -CEO	"They (founders) probably didn't have a board of directors when we invested in them. Or the board of directors consisted of these two founders. They probably had some advisors from their own networks but they (advisors) were not involved (in the board) when we invested. ... All these types of things like board work and reporting and so on were created in the beginning." -Investment partner ."Before the investor, I don't believe that they had any kind of monitoring. The scale of business was small when they founded it (the company), so I guess that those systems (monitoring) has been quite undeveloped." -Investment partner	"Yes, it (reporting) has (changed). Partly because the company has developed. For example, the company did not have a CFO when we invested in it. So of course, it (the company) is at a whole different level than it was when we invested in it the first time. Surely they would have developed it (reporting) themselves, without the investor, as the size (of the business) grows. But as I mentioned, we have been involved in the development (of reporting)." -Investment manager "He (investment manager) has, through his own involvement, been active, and in a positive way. It (involvement) has drived, and not forced but enabled, development of reporting practices. It is a very good thing." -CEO

4.1.2.1. Group 1: Buyout cases with the focus on promoting entrepreneurial behaviour

This first group of cases includes most of the buyout cases in the sample. Typically, cases in this group are relatively established with an operating history of 10 years or more. An exception in this sense is Case F, which was founded only a few years before the PE investment. A unifying theme among cases in this group is that the PE investor has significantly changed or at least aimed at changing the strategic direction of the portfolio company. This change in the strategic direction almost always includes international expansion. In addition, besides organic expansion efforts, growth can be driven by M&A: three out of seven cases in this group are 'buy-and-build' cases i.e. companies that have aggressively grown through a series of add-on acquisitions. More detailed case descriptions can be found in ***Appendix A***. Radical changes in strategic direction do not happen accidentally and hence, one key role of the PE investor in these cases is to be involved in the development of the initial industrial vision. The CEO of Case A summarises the role of the PE investor as follows:

"What [PE company] brought was the industrial vision to build this type of an entity. [PE company] supported the management, together with management scouted and found good acquisitions targets and acquired financing for acquisitions. [PE company] acted as a growth engine"

Interviewees of case companies in this group often mentioned that one central value-adding mechanism during the PE funds's ownership is a medium-term value creation plan that is typically developed already before the investment together with the CEO or the top management team. This plan provides the company with guidance regarding strategic topics, such as positioning, growth type (organic vs. inorganic), growth pace (i.e. which expansion effort are taken and when) and international expansion, during the fund's ownership period. The investment partner of Case E describes their approach in the following way:

"Our operating model is that before we make the investment, if possible, we want, together with the management and a project-based advisory group, go through the plan

about what we would like to do during the next five years, or whatever the time period during which we are planning to be involved in the company is"

This value-creation plan and the original industrial vision are two tightly interlinked concepts: The plan is a tool to achieve the strategic vision. In the best scenario, successful implementation of the medium-term value creation plan leads to a well-positioned company that has been able to grow profitably during the investment period and is an attractive target for further buyer candidates. The investment manager of case D summarises the relationship between a value-creation plan and strategic positioning as follows:

"One important value creation tool is strategic positioning. Merging many local companies and creating a larger Pan-Nordic player has two key advantages. First, it is more efficient in many ways. The second positive aspect is that the company can be sold much easier and at a much higher valuation"

"(Our role was) significant, very significant. It (strategic positioning) was one of the key points in the original idea. … When we sold [the company] last year, buyers were mainly multinational corporations that had clear synergies (with [the company]), which further means that they can offer a much higher price than for example other private equity company"

The quote above reveals another important characteristics in cases in this group. Although *the focus* of investor involvement is in promoting entrepreneurial behaviour, professionalization measures such as development of board work and reporting practices are also present. As the investment manager of Case D describes, fast growth is supported by a more systematized management practices:

"In this case one clear value creation path is that small, local [companies] are in a creative industry and people are creative but project management may not be at the same level with other industries. ... Development of that (project management) and development of IT systems and reporting so that there would not be many surprises when you make 20 projects per year. And of course, considering performance monitoring ... we have ready value creation templates or best practices, which were also carried through. "

As discussed in the previous chapter, recruitment of the new CEO may be a non-financial activity that the PE investor performs in order to promote entrepreneurial behaviour in the organization. In three out of seven cases in this group, namely in cases A, D and E, the PE investor has recruited a new CEO to lead strategic change. The investment partner of case E summarises their objective to recruit a new CEO in the following way:

"It was clear that the entrepreneur, who sold his ownership in this transaction, is not the person who takes this (company) to the next level. ... We had a clear vision that this (company) needs a new management."

The quote above implies that recruiting of the new CEO to lead strategic transformation is not actually an act that promotes risk-taking but rather a way to enable and facilitate risk-taking.

Typically, PE investors of case companies in this group consider that their portfolio companies operate in somewhat predictable and stable markets (see ***Appendix B***). It seems that this type of investor involvement that focuses no pre-defined value-creation planning and aggressive growth targets is suitable in relatively stable environments. However, this group includes also a few case companies, namely C and F that have experienced significant market turbulence during the studied time period, which has naturally affected the performance of these companies. The effect of market dynamism on value added by private equity will be analysed in more detail in Chapter 4.2.2.

However in general, cases in this group have been highly successful in terms of sales development during the investment period. This implies that this type of investor involvement that is based on ambitious an industrial vision and a medium-term value-creation plan, potentially including a new management team or a CEO who leads the transformation, is an effective value-adding mechanism in certain PE investment situations.

4.1.2.2. Group 2: Buyout cases with the focus on professionalization

This group differs from the previous one in the sense that despite growth and internationalization efforts, the pursued change in strategic direction after the PE investment is not very radical. Typically, companies in this group had grown rapidly already before the PE investment and the growth pace was sustained or increased during the PE funds’s ownership. Consequently, PE investors of cases in this group also consider the current CEO the right person to take the company to the next level. For example, the investment partner of case G describes the top-management team of the portfolio company in the following way:

“[The company] was a combination of a good management (team) and strong entrepreneurial spirit.… I have been in [the PE company] for 16 years and I have never seen such a strong management team in any of our other portfolio companies. And I am referring especially to the breadth (of skills). There are many companies in which for example a CFO has been more competent or some other individual managers have been more competent. But in terms of breadth, the core team consisted of very strong individuals who were competent and sales-oriented.”

On the other hand, the main characteristic that unifies cases in this and the first analysed group is the approach on strategic planning. Also PE investors of cases in this group seem to approach strategic panning through pre-defined value-creation plans. For example, the investment partner of case G describes his and his colleagues’ involvement in strategic planning as follows:

"Right in the beginning, when we invested the company, we sat down, both formally and informally, with the core team and created a development plan. ... Considering the actual strategy, we met once a year and checked that this is our strategy, do we need to change it. However, the strategy was mainly created in the beginning and it (the initial strategy) was followed"

However, companies in this group clearly differ from Group 1 in terms of the focus of investor involvement. Instead of increased entrepreneurial behaviour, PE investors of cases in this group highlighted that case companies became more professional and focused after the PE investment. For example, the investment partner summarises change in the case company G as follows:

"I would say that after our investment the company had a real board of directors for which the management had to report. ... We had once a month a board meeting for which the management prepared reports and presentations. I feel that this kind of shape up was the foundation for everything. Now [The company] was managed like a real company. And this does not mean that it had not been managed well before us, but I guess it became more conceptualized, more focused"

"I feel that the company has always been ambitious in terms of sales, they have a very strong sales organization. In that sense, we did not have much to give. But considering profitability, I feel that the change in profitability monitoring and requirements was quite significant"

Also the investment manager of case B mentions that besides fast growth, the company has become more structured and professional:

"[The company] did not have the board of directors before our investment - or it was only in the head of the CEO. I think it (board work) has been rewarding for all of us, and also the operating management appreciates the support it gets from the board"

"Besides internationalization, I think that the company has entered the next phase of development ... From the customer perspective, the company is now more professional. Also in terms of organization and concept, one person is not anymore responsible for everything but responsibility is now divided between different persons and organizational levels"

Especially in Case B, increased professionalization does not refer only to improved monitoring and corporate governance but also a more analytical approach on strategic planning. The investment manager of case B describes how strategic planning became more structured after the PE investment in the following way:

"They (the management) surely had a general idea that next to us is an economy that is twice as large as ours, and the market for [the product] is probably large. However, no one actually understood whether it really is a good market to enter and why it would be

and why it wouldn't be. ... We decided to do a market research and when it showed that we should enter the market, we started to think how to enter and what we should do there. We (PE investors) acted as a sparring partner to the team and the project leader when the actual market entry started after the summer of 2012."

One interesting characteristics in these type of already entrepreneurial buyout backed companies is that interviewed investors mentioned that they felt the need to keep strategy focused, which sometimes meant that the investor had to decline growth ideas of the top-management team. For example, investment partner of Case G describes the role of the investor in strategic focusing in the following way:

"We had a very entrepreneurial and positively thinking management team. There were quite many different ideas, like 'let's buy this kind of company' and 'let's enter this market' and 'let's do this' and 'let's do that'. Afterwards I can say that although the management deserves most of the credit, also we have been acknowledged as a rigorous sparring partner for the management when the management team brought up these new ideas. We continuously considered what is our focus and what are those business areas in which we have the opportunity to be the market leader and really grow. … We kept our focus quite tight and shot down quite many new ideas, which, in retrospect, was smart for sure."

This above-discussed phenomenon is not, at least to the same extent present in Group 1. Interestingly, investors of the next group, i.e. VC backed companies with the focus on professionalization, acknowledge the need to keep strategy focused and challenge ideas of the top-management team. This implies that despite the investment type, PE investors can in some situations add value by focusing growth efforts on the most attractive business options.

Both cases in this group can be considered successful in term of post-investment sales growth. Considering the fact that both case companies were at a phase of fast growth at the time of the PE investment, it can be concluded that in fast growing buyout backed cases, key value-adding mechanisms are professionalization of the organisation as well as ambitious but focused growth plans.

4.1.2.3. Group 3: VC cases with the focus on professionalization

This third group of cases includes most VC cases of the sample. Most of these case companies are young ventures that, before the VC investment, had no formal board of directors or systematized reporting practices. In these cases, the PE investor typically is the party that promotes creation of these mechanisms. For example, the CEO of Case M describes the nature of investor involvement in the beginning of the investment period as follows:

"In the beginning, they (PE investors) were exceptionally active in aspects related to running the business. They clearly saw that we understood and still understand our market and market dynamics better than anyone in the world. ... We had just entered the market and probably our greatest weaknesses were related to governance structures and basic corporate infrastructure. So, [the VC investor] as an active guy took quite an active role in these things - both in good and bad. Afterwards, it was definitely a good thing, but at that time it did not always feel like that."

Also the CEO of Case O acknowledges the role of the PE investor as a promoter of more systematized reporting practices:

"He (investment manager) has, through his own involvement, been active, and in a positive way. It (involvement) has driven, and not forced but enabled, development of reporting practices. It is a very good thing."

Similarly to buyout backed case companies with the focus on professionalization, also PE investors of case companies in this group often mentioned that they challenge and even decline expansion plans of entrepreneurial CEOs. For example, the investment partner of case L describes how the company has deliberately focused its efforts only on the most attractive opportunities:

"Considering expansion efforts, the role of the board is to sharpen the focus. Many entrepreneurs and companies want to conquer the whole world right away, send one guy there and another there. But I have never seen that this would have been a

successful plan. We have abandoned many expansion plans as we have wanted to focus on one or two segments."

Considering involvement in strategic planning in portfolio companies, it seems that buyout and venture capital investors have slightly different approaches. As discussed in previous sub-chapters, buyout investors emphasized the role of predefined medium-term value-creation plans. In contrast, venture capital investors typically described their role in strategic planning as participants in ongoing strategic discussion. One reason for these differing approaches may be the perceived industry dynamisms (see Chapter 4.2 for more detailed analysis). While buyout investors invest in relatively established companies that often operate in mature and stable industries, venture capital investors invest in young companies that typically operate in emerging and turbulent industries. Interviewed venture capital investors generally thought that unpredictable, dynamic environment requires a more flexible approach on strategy. For example, the investment manager of case K describes his role in the strategic planning of the case company:

"We do quite actively strategy work together. The world changes at a tremendous pace around this company. … For that matter, one has basically all the time think where this company is, where it should be, where the market is and where it should not be. Well, of course we try to think also the big picture – what problem it (the company) solves, what value added it provides and how it should be positioned in the market."

Reason to recruit a new CEO is another factor that differentiates this group from earlier discussed buyout cases. In young ventures, recruiting of the new CEO is a tool to professionalize, rather than revitalize the company. For example in case M, the CEO has been replaced not once but twice during the VC fund's ownership. First, the co-founder-CEO was replaced with a professional outside CEO one year after the first non-seed VC investment. In 2013 when the company according to the VC investor and the CEO was already at a relatively stable state, the co-founder-CEO was recruited again. The current and once replaced CEO of the case M describes the role of the CEO as follows:

“These (replacements of the CEO) are important milestones for the company in the sense that these changes reflect to strategy, culture, what is done and how things are done here (in the company).”

The founder-CEO was replaced with a new CEO with prior executive experience also in Case L. The investment partner of case L describes the effect of this change on the company in the following way:

"Due to the new CEO and due to the (external) investor, (the company) has become much more structured. [The company] has changed tremendously from a start-up to a real company with processes."

Another factor that differentiates VC backed case companies from their buyout backed peers is the need for legitimacy. For young ventures, PE investor can provide credibility, for example, in the eyes of debt provides as described the CEO of Case O:

“We are even able to use financing services of commercial banks because we have real assets and real revenue. … [Three institutional investors] are all very stable and trustworthy names, which provides us with credibility when acquiring additional financing.”

In addition to providers of additional funding, the PE investor can provide legitimacy for the young venture in the eyes of potential new customers. The investment manager of Case L describes the role of the VC investor as a provider of credibility as follows:

“As a chairman of the board, I am quite a lot involved in these high-level negotiations. … It is part of my job description. However, it is the team who does these (deals) anyway. … (For example) In the Far East, if the board of directors or some senior executive (of the customer) is invited to the dinner table, also we have to have executives of the same level. It is part of the business culture.”

4.1.2.4. Group 4: VC cases with the focus on promoting entrepreneurial behaviour

This fourth and final group that consists only Case J differs from other cases in the sense that interviewed venture capital investors are also co-founders of the case company and have significant prior industry experience. Hence, the Finnish VC investor of this case has somewhat more entrepreneurial role in the company. Consequently, the company can not be considered a traditional early-stage start-up. A good example of the more entrepreneurial approach of the Finnish VC investor is that the initial funding from the Finnish VC fund, individual investors and one foreign investor was used for launching the business at a relatively large scale right in the beginning. The investment partner and co-founder of the Case J describes the role of the initial funding round in the following way:

”In order to launch the business, an initial funding of just over million euros was needed. … It (funding) enabled us to have about 20 employees from day one. Without the initial funding, it (the business) would have been quite impossible to launch because our customers are quite demanding. They demand credibility, best sponsors and (best) people. … Otherwise, they don't trust that they will get all the required help and hence, they will not be willing to pay for it (the service).”

After the first funding round, the company has raised additional funding not only from the initial investors but also from large foreign venture capital funds. Considering further financing rounds, this case is similar to other venture capital cases in the sense that one key role of the Finnish venture capital investor is to provide the company with credibility in the eyes of potential new investors. The investment partner of the case J summarises their role as an investor as follows:

“Now other investors see that there is at least one investor and a board member who has industry experience and knows the industry. So, there is at least on logical and competent investor for this company. It is probably the most important (role of the VC investor).”

Like several other case companies, also case company J decided to recruit a new CEO a few years after the first VC investment. However, in Case J the reason to recruit a new CEO differs from other VC cases: instead of professionalization, the new CEO was recruited to bring new ideas i.e. to renew the company. In this sense, Case J is somewhat similar to the first analysed Group 1. The investment partner of Case J describes the reason to recruit the new CEO as follows:

"And at some point we noticed, and it is no surprise, that we need new ways of thinking and doing things. ... Then we decided that now is the right time to find a new CEO who can bring in new blood and energy, new ideas and new ways of working."

In sum, Case J can be considered a combination of Group 3 and Group1, which reflects to joint-role of the Finnish VC company on one hand as an investor and on the other hand as a co-founder. Case J is 'a typical VC case' in the sense that the Finnish VC investor provides the company with credibility in the eyes of other potential investors. On the other hand, for example the recruiting of the new CEO to revitalize the company and the initial investment in the building of an organization of 20 experienced employees can be considered as acts that promote risk taking and entrepreneurial behaviour in the case company.

4.1.3. Synthesis of non-financial services provided by PE investors

Based on findings of previous four sub-chapters the framework presented in Chapter 4.1.2 can be further complemented with investor activities associated with each of the four groups discussed earlier. As can be seen in the further developed framework presented in ***Figure 6***, each earlier-discussed case type has some similarities with other types of cases that are next to it (either horizontally or vertically). By using this framework, I will next develop propositions considering five distinct yet interlinked aspects.

Figure 6. Extended theoretical framework of non-financial services provided by Finnish PE investors.

Investment type	Focus of investor involvement: Focus on promoting entrepreneurial behavior	Focus of investor involvement: Focus on professionalisation
Buyout	Group 1 The key role of the investor is to promote entrepreneurial behaviour by developing strategic vision and a value creation plan together with the top-management team Potential high growth is supported with professionalization measures Often also a new CEO is recruited to lead strategic transformation Cases in the sample: A, C, D, E, F, H, I	Group 2 The key role of the investor is to promote professionalisation in the organisation by improving monitoring and corporate governance practices The investor may also need to challenge the growth ideas of the top-management team in order to keep strategy focused In cases of this sample, the CEO was not replaced Cases in the sample: B, G
VC	Group 4 This segment includes case J in which investment partners of the Finnish VC investor are also co-founders of the company and hence their role is more diverse and entrepreneurial than that of 'a traditional VC investor' VC funding enabled the company to have an organisation of approx. 20 employees from day one A new CEO was recruited to bring new energy and ideas As an investor, theVC investor provides the company legitimacy in the eyes of external stakeholders. Cases in the sample: J	Group 3 The key role of the investor is to promote professionalisation in the organisation by improving monitoring and corporate governance practices The investor may also need to challenge the growth ideas of the top-management team in order to keep strategy focused Often also a new CEO is recruited to professionalise the company For these companies,the PE investor provides also legitimacy in the eyes of external stakeholders Cases in the sample: K, L, M, N, O

4.1.3.1. Focus on promoting entrepreneurial behaviour vs. professionalization

As discussed earlier, cases in which the PE investor promoted professionalization were already relatively growth-oriented companies. On the other hand, cases in which the PE investor focused on promoting entrepreneurial behaviour were typically established companies with functioning internal processes and structures. Although both types of investor involvement, promoting entrepreneurial behaviour and professionalization are to a some extent present in all cases, it can be concluded that successful PE investors have identified which type of management practices the portfolio company lacks and promoted that type of management practices during their ownership. This finding leads to following propositions:

Proposition 1: Considering established companies, successful PE investors add value by focusing on promoting entrepreneurial behaviour in the organization.

Proposition 2: Considering entrepreneurial companies, successful PE investors add value by focusing on promoting professionalization of the organization.

In addition, several interviewees mentioned that increased professionalization and ambitious and risky growth plans are somewhat contradictory objectives. According to interviewees, more systematized internal procedures can increase bureaucracy and decrease entrepreneurial spirit in the company. For example, the investment manager of case L shares the concern that while companies become more professionalized, they can lose the drive of a young venture:

”It (professionalization of the company) has it good and bad sides. … Enthusiasm of a young company should be preserved in the company. We have discussed about this a lot. Because (the company) should not become too corporate either. The bad side of a corporation is that everybody expects that somebody else does everything or tells what you should do.”

Also the investment partner of Case A acknowledges this tension between professionalization and entrepreneurial behaviour:

"When building a larger entity, one risk is that we will bring only bureaucracy and reporting. Although these kinds of things are necessary, they can also kill entrepreneurial attitude, hard-working atmosphere and growth-oriented culture "

As can be seen in quotes above, interviewed investors acknowledge that there must be a balance between growth-promoting and institutionalizing activities. At best, private equity investors are able to develop their portfolio companies at a sustainable manner; promote growth while simultaneously professionalizing the organization. These findings provide us with the following propositions:

Proposition 3: Successful PE investors are able to balance between promoting entrepreneurial behaviour and professionalization in their portfolio companies.

4.1.3.2. Approach on strategic planning

Based on cross-case analysis between buyout and venture capital cases, it seems that buyout and venture capital investors see the role of strategic planning somewhat differently (see ***Appendix C***). As discussed in earlier chapters, buyout investors emphasized the role of predefined medium-term value-creation plans while venture capital investors typically described their role in strategic planning as participants in ongoing strategic discussion. Although these two approaches, proactive medium-term planning and continuing discussion are not exclusionary activities and both investor types are to some extent involved in both types of strategic planning, buyout and venture capital investors seem to place a different emphasis on these approaches. This finding leads to following propositions:

Proposition 4: In buyout investments, the focus of strategic planning is on the development of a medium-term value creation plan.

Proposition 5: In venture capital investments, the focus of strategic planning is on ongoing strategic discussion.

In Chapter 4.2.2, I will develop these propositions further and argue that successful PE investors are able to adjust strategic plans during unexpected changes in the market.

4.1.3.3. Development of the top-management team

In young and entrepreneurial companies, typically in Group 2 or 3, recruiting of outside management professionals can be considered one tool to professionalize the company. In contrast in established companies, typically Group 1 and Group 4, a new CEO was often recruited to revitalize the organization or to lead the company during significant strategic changes. ***Appendix D*** summarises reasons for recruiting a new CEO in those cases where a new CEO was recruited. In other words, reasons for recruiting a new CEO and other top-management team members is linked to the focus of investor involvement. The fit between the reason to recruit a new CEO and the current development stage of the portfolio company seems to determine whether this activity is value adding or not. This finding is presented below as two propositions:

Proposition 6: Considering entrepreneurial companies, recruiting of a new CEO adds value when it is aimed at professionalizing the company.

Proposition 7: Considering established companies, recruiting of a new CEO adds value when it is aimed at revitalizing the company.

4.1.3.4. Reputation provided by PE investors

As was discussed in Chapter 4.1.2.3, young ventures often lack legitimacy or credibility in the eyes of external stakeholders. Both interviewed investors and CEOs acknowledged that the VC investor has a role as a provider of reputation for the portfolio company (see ***Appendix E***). This credibility may be needed in order to convince, for example, new customers or debt providers about the quality of the start-up. However, this phenomenon was not present in buyout cases. Hence, the following proposition can be made.

Proposition 8: Benefits from affiliating with a reputable PE investor are greater for VC backed rather than buyout backed companies.

4.1.3.5. Limits of investor involvement

As discussed earlier, the key value-adding services of PE investors include involvement in strategic planning, recruiting of the key management and monitoring, changes in corporate governance and sparring of the management team. These are activities in which all interviewed investment managers participate. Although these activities can potentially have a significant effect on the company performance, it should be highlighted that PE investors do not and should not run the actual business. The line between planning and implementation also seems to define the boundaries of investor involvement.

In general, interviewed investment managers have, besides private equity, prior work experience either in finance or management consulting. For this reason, their fields of expertise are typically related to finance and/or strategy. Hence, it is natural that investment managers are mainly involved in these aspects of the business. Both interviewed investment managers and CEOs agree that PE investors typically do not and should not participate in the day-to-day, operational decision-making and management in their portfolio companies. In addition to the lack of operational expertise, investment managers highlight the importance to separate roles of the external investor/ board member and the operational management. This point is related to earlier-discussed changes in corporate governance in which PE investors typically have an active role. The investment partner of Case A summarises why the PE investor was not involved in the operational aspects of the business as follows:

"I would say that right after we had recruited the management team, we withdrew from that role (in operational management) because it is not a part of our job description and it is not sensible to allocate time for that. Moreover, we are not even good at it and it is pointless to do something at which you are not good and which is not your business."

Furthermore, the investment partner of case L summarises where he thinks is the limit of the investor involvement in the following way:

"As long as it (investor's involvement in operational aspects) is sparring, everything is fine. But if you really have to start doing things as a member of the board or as an investor yourself, then you have either a wrong management team or wrong people in that team. I think that, as a board member and as an investor, you are like the owner or

the general manager or the coach of the hockey or football team. If you have to go there and start to play the game yourself, it will come to nothing."

Considering the limits of investor involvement, exceptions seem to be those investment managers who have prior business experience that is directly related to the industry in which the portfolio company operates. Not even these investors are involved in the operational day-to-day business management but they may provide advice or relevant industry contacts in case of operational issues. For example, investment managers of case J are both investors and founders of the case company and former colleagues of several members of the management team. They have 10-15 years experience from the industry and hence are able to provide relevant contacts not only in the financial sector but also in the industry:

"When the organisation faces some challenges they may ask us 'hey, who could help us and who knows something'. … That, quite logically, is related to our long industry experience."

In conclusion, investment managers of case companies are mainly involved in those areas of the company development about which they have prior experience and expertise. Involvement in areas about which the PE investor does not have expertise was considered even harmful for the portfolio company. These findings lead to the following proposition:

Proposition 9: Successful PE investors actively participate in only those aspects of the portfolio company business of which they have relevant expertise.

In Chapter 4.2.1, I will complement this proposition and argue that successful PE investors are able to identify their own areas of expertise and acquire further complementary expertise for their portfolio companies.

4.2. Fuzzy-set qualitative comparative analysis on the effects of investor characteristics and environmental conditions

This chapter presents the results of two fsQCA analyses. The first analysis examines how prior experience and further accumulated expertise of the PE investor, and complementary expertise of outside board members affect portfolio company performance. The main result of the analysis is that an ability to build a balanced portfolio of diverse types of expertise in the board of directors has a positive effect on portfolio company performance. On the other hand, the latter analysis studies the effect of industry dynamism and an ability to adjust strategy according to environmental changes on portfolio company performance. The key finding of this analysis is that during unpredictable changes a successful PE backed company should be able to make also those type for strategic decisions that are contradictory to the original value creation plan. In conclusion, both analyses emphasize the importance of adaptive investor involvement – one from the perspective of investor characteristics and another from the perspective of industry dynamism.

4.2.1. Experience of the PE investor and outside expertise acquired through networks

One interview question was what resources the PE investor has brought to the portfolio company. Almost all interviewed investment managers mentioned their expertise as one key resource. Expertise was further acquired through business and investor experience. The role of experience is also widely present in the existing academic literature (see e.g. Kaplan & Schoar 2003; Bottazzi et al. 2008). Based on interviews, expertise of the investor is transferred to the portfolio company through informal sparring and advice as well as through involvement in formal board and strategy work.

However, interviewed investors come from various backgrounds and differ in terms of prior experience. Thus, they differ also in terms of their expertise profiles. In addition, both interviewed investors and CEOs stated that the PE investor does not naturally have experience in all fields that are possibly relevant for the portfolio company. Typically, investors have experience related to financial and strategic issues, but they are less familiar with operational aspects of the business. Hence in almost all cases, the investor has appointed outside board members with relevant business experience. In all cases, at least one outside board member has prior operational experience from the same or closely related industry in which the case company operates. This means that besides monitoring and approval of long-term strategic decisions, the board of directors has a role also as a provider of valuable business expertise. These findings evoke two questions. Is a certain type of investor experience associated with positive performance, and can the expertise of the PE investor be complemented by the expertise of outside board members?

In order to examine these questions in more detail, a fsQCA algorithm with four causal conditions was conducted. The first condition is years of work experience in private equity that the investment manager(s) of the case company had at the time of the first investment. This was considered an important condition because several activities that PE investors perform in their portfolio companies, such as strategic positioning and help the company obtain additional funding, are present in basically all PE cases, Hence, experience from former portfolio companies may provide the investment manager with valuable expertise. Considering this dimension, PE experience of 10 years or more received a full membership score while PE experience of 2 years or less were non-members of this condition. A membership score of 50 % was set to 6 years in private equity.

In addition to experience in private equity, other business experience is an interesting condition that may have a positive effect on intangible resources that the PE investor can offer her/his portfolio companies. This second dimension does not differentiate operational experience from, for example, experience from management consulting or financial advisory. In addition, other business experience of the investment manager can be from any industry except private equity. Hence, this dimension measures the general business and corporate-related experience of the investor rather than her/his specific industry knowledge. This dimension was calibrated similarly than the first one.

The third causal condition is prior industry experience. The investment manager can have prior experience, either as an investor or as a business manager, from the industry of the portfolio company. It is a reasonable assumption that prior experience from a relevant field would accumulate intangible resources of the investor in a meaningful way. However, prior industry experience is present in only 2 cases, G and J. Hence, although interviewed investment managers of cases G and J both considered prior industry experience beneficial, it can not be logically considered to be a necessary condition for good portfolio company performance. In this analysis, prior industry experience is a binary variable.

In order to simplify the analysis, only the experience of those investment managers, who were also board members in the case company, were analysed. If there were two managers in this position, the one that had more experience was included in the analysis. This means that the experience of those investment managers who were actively involved in the case but did not act as board members or are younger than their colleagues are excluded from the analysis.

The fourth and final condition is the share of outside board members in the portfolio company. Several interviewees mentioned that outside board members provide the company with valuable business expertise. In addition, PE investors also mentioned that when hiring outside board members, their primary objective is to find business professionals with relevant expertise that the company currently lacks or especially needs. Thus, it can be concluded that outside board members complement the portfolio of intangible resources that PE investors offer their portfolio companies. The full membership score was set to 60 %, 50% membership score to 40%, and 20% or less received a membership score of zero.

Finally, the outcome of these four conditions is 3-year compounded sales growth of the case company since the first investment. The case was considered to be a full member of the outcome if 3-year sales CAGR was 60% or more. Similarly, the case was considered to be a non-member of the outcome if the 3-year sales CAGR was 20% or less. The point for 50% membership was set to 40%. ***Table 11*** summarises calibration limits of conditions and the outcome.

Table 11. 0%, 50% and 100% membership score limits for causal conditions and the outcome.

	No membership	50% membership	Full membership
Years of work experience in the private equity	2	6	10
Years of work experience in other industries	2	6	10
Prior experience from the industry of the case company (yes=1, no=0)	0		1
Share of outside members in the board of directors	20 %	40 %	60 %
3-year sales CAGR after the first investment	0 %	30 %	60 %

The results of the fsQCA algorithm are presented in ***Table 12***. The table shows that there are three different configurations that can lead to positive portfolio company performance.

Table 12. Solution table of the fsQCA analysis.

	S1	S2	S3
Amount of experience *Experience from the private equity*	-	•	⬤
Other business experience	⨂	-	⬤
Relevancy of experience *Experiece from the industry of the case company*	⊗	⬤	⊗
Comlementary expertise *Share of outside members in the BoD*	⬤	⊗	-
Consistency	0,984	1,000	0,905
Unique coverage	0,282	0,161	0,181
Raw coverage	0,364	0,161	0,263
Cases with greater than 0.5 membership in the solution	A, B, E, O	G, J	D, H, L
Consistency cutoff		0,870	
Total solution consistency		0,963	
Total solution coverage		0,706	

Explanations
S1, S2 & S3 = causal recipes
Large circle=core condition, small circle=peripheral condition
Black circle=condition present, circle with X=condition absent

The first solution implies that if the investment manager herself/himself has only limited amount of prior business experience, strong presence of outside board members has a positive effect on portfolio company performance. In this solution, the experience in private equity is not a relevant causal condition. Reason for this is that configurations that belong to this group contain cases with both long and relatively short PE experience at the time of the first investment. This does not, however, mean that prior PE experience could not be a beneficial characteristic for an investor.

On the other hand, as implied by the second solution the presence of outside board members is not needed if the investment manager has prior experience from the same industry in which the portfolio company operates. This solution covers two configurations, namely G and J. In case G, the investment manager has previously been a case manager in a portfolio company that operated in the same industry as the case company G. In other words, the investment manager has prior PE experience from the relevant industry. On the other hand in case J, both investment managers have previously been involved in a highly successful company that operated in the same industry as the case company J. One investment manager worked as a director in that company while the other was an individual investor and advisor for the same company. In conclusion, operational or PE experience from the relevant industry may decrease the need for additional business expertise provided by outside board members.

Finally, the third solution indicates that strong business experience combined with long history in private equity can lead to positive portfolio company performance. In this configuration, prior business experience is not from the same industry in which the portfolio company operates. However, this does not mean that the investment manager could not have experience from closely related industries either as an operational manager or an investor. In these configurations, the expertise of the investor can be complemented by the expertise of outside board members or not.

The key finding of this analysis is that each individual solution has different core conditions. In other words, there is no single type of experience that would ensure good outcome. In contrast, key to success seems to be the ability to identify what type of experience the investment team has and then complement this expertise portfolio with suitable profiles in the board of directors. These findings result to the following proposition:

Proposition 10: Successful PE investors identify their own expertise profile and are able to provide complementary expertise through their networks.

4.2.2. Environmental dynamism and involvement in strategic planning

Another theme that several interviewees mentioned is the impact of environmental factors on investor involvement, and more specifically the impact on involvement in strategic planning. As discussed in Chapter 4.1, buyout and venture capital investors have somewhat different approaches on strategic planning. Venture capital investors argued that rapidly changing environment requires strategic planning to be an ongoing dialogue between the PE investor and the top-management team. On the other hand, buyout investors stated that based on their views on the future of the industry, they created a vision and growth plan in the beginning of the project together with the management. ***Appendix C*** summarises each PE investor's approach on strategic planning.

Naturally, both of these approaches can lead to a good outcome. However, the main assumption in the medium-term value creation plan approach is that the industry develops as expected. If this is not the case, the company has to be able to change its strategic direction substantially. Buyout case F provides an example of this phenomenon. Initially, the company operated in an attractive market with substantial growth potential. About a year after the initial investment, the market crashed unexpectedly due to a political dispute. The top-management team and the investor started to think what other services the company could offer for its target customers and with the existing business concept that was developed in the beginning of the investment period. With the support of the VC investor, the company initiated a substantial strategic transformation, and was able to grow from scratch to a fast-growing company with yearly revenue of over 20 million euros. Although in terms of sales growth case F is not among the top-performing cases, the case can be considered a successful example on how ability to promote strategic change during radical and unexpected changes is a valuable form of active ownership.

On the other hand, case C, which is the largest one of case companies in terms of pre-investment revenue, operates in a fairly mature and stable industry, which, however, is highly vulnerable to macro-economic changes. The market crashed during the financial crisis in 2009 and consequently, company sales decreased by 50%. The company did not change its strategic direction fundamentally in order to recover from or prepare for the crisis. The interviewed investment manager mentioned that although the company was prepared for worsening economic conditions, the magnitude of the market drop surprised them. Although it is impossible to say whether the company would have been immune to worsening industry conditions if it had adjusted its strategy, Case C is an example of a company in which pre-defined value creation plan was affected by unexpected market changes.

In conclusion, environmental dynamism and ability to adapt to industry changes seems to be an important factor affecting the value-adding potential of private equity. To examine this effect, a simple fsQCA algorithm across three dimensions was performed. Considering environment dynamism, two dimensions presented in the existing literature were taken into account. First of them is the rate of industry change while the second one is the uncertainty of the market (Fiss et al. 2011; Baum & Wally 2003; Dess & Beard 1984). These dimensions were measured by sending all interviewees a short survey in which they rated both rate of change and uncertainty of the market in a scale of 1 to 5. Considering both dimensions, the case was considered to be a full member of the condition if the perceived rate of change/ uncertainty was considered very high (5). Similarly, the case was considered to be a non-member of the condition if the perceived rate of change/ uncertainty was very low (1). The point for 50% membership was set to 3.

In addition, cases were divided into two groups in terms of strategic change; those in which strategic direction has not substantially changed during the PE fund's ownership and those in which the investor and the top-management team have decided to refocus the strategy. Based on interviews, these adjustments in case company strategy were mainly initiated due to changes in the industry landscape. ***Appendix F*** summarises cases in which strategic has been refocused during PE fund's ownership. Like in Chapter 4.2.1, performance was measured as 3-year revenue CAGR since the first investment. ***Table 13*** shows how these three dimensions and the outcome variable were calibrated. The fsQCA algorithm produced two distinct solutions. These are presented in ***Table 14***.

Table 13. 0%, 50% and 100% membership score limits for causal conditions and the outcome.

	No membership	50% membership	Full membership
Rate of change of the industry in a scale of 1 to 5 (1=industry changes slowly, 5=industry changes fast)	1	3	5
Uncertainty of the industry in a scale of 1 to 5 (1=industry changes can be predicted well, 5=industry changes can not be predicted at all)	1	3	5
Refocusing of strategy (yes=1, no=0)	0		1
3-year sales CAGR after the first investment	0 %	30 %	60 %

Table 14. Solution table of the fsQCA algorithm.

	S1	S2
Industry dynamism *Rate of change*	-	●
Uncertainty	⊗	●
Strategic changes *Refocusing of strategy*	⊗	●
Consistency	0,838	0,862
Unique coverage	0,601	0,136
Raw coverage	0,601	0,136
Cases with greater than 0.5 membership in the solution	B, D, G, J, K, N	O
Consistency cutoff	0,817	
Total solution consistency	0,842	
Total solution coverage	0,737	

Explanations
S1 & S2 = causal recipes
Large circle=core condition, small circle=peripheral condition
Black circle=condition present, circle with X=condition absent

Table 14 shows that key differentiating factors between two solutions are environmental uncertainty and existence of strategic changes. In the first solution, industry changes are somewhat predictable and probably due to that, no major strategic changes are needed. In this solution, the rate of environmental change can be either rapid or slow. The solution covers both buyout and venture capital cases. In other words, both medium-term value creation plan and ongoing strategic discussion can be suitable approaches on strategic planning in this type of environment. On the other hand, the second solution states that a good outcome can be achieved also in unpredictably and rapidly changing environments if the company is able to adjust its strategic direction accordingly. As case

F shows, the PE investor can have a significant role in this strategic refocusing. Results of this analysis lead to following propositions:

Proposition 11: When the industry changes as expected, successful PE investors promote the implementation of the original strategic vision.

Proposition 12: When industry changes are unexpected, successful PE investors adjust the original value creation plan.

5. Discussion and conclusions

This final chapter discusses results and compares them with findings presented in the academic literature. In addition, reliability and validity of results will be assessed. Finally, this chapter suggests some directions for further research.

5.1. Discussion of results

The purpose of this thesis was to examine how Finnish PE investors contribute to the performance of their portfolio companies. Considering the empirical part of the thesis, the research problem was divided into three research questions. First, this thesis studied how Finnish PE investors use value-adding mechanisms in order to facilitate the growth of their portfolio companies. Another perspective, which was discussed in Chapter 4.2.1, was to examine whether investor-specific characteristics affect value added by Finnish PE investors. Finally in Chapter 4.2.2, effects of industry characteristics on value added by Finnish PE investors were studied. During the next sub-chapters, I will discuss results of each of these research questions in more detail.

In order to discuss results in a clear and concise manner, earlier provided propositions are divided into three categories, which will be discussed separately during the next paragraphs. The first category consists of propositions 1-7, which are related to *non-financial services provided by PE investors*. This group of propositions is related to the first-mentioned research question *"How have private equity investors used value-adding mechanisms in order to contribute to the operational performance of their Finnish portfolio companies?"*. In addition, propositions 8, 9 and 10 form the second group of propositions, which focuses on *investor characteristics.* This groups provides answers for the research question *"How do investor characteristics affect value added by private equity?"*. Finally, the third group of propositions includes propositions 11 and 12 and this group is related to the research question *"What is the role of industry characteristics on value added by private equity?"*. ***Table 15*** summarises proposition groups.

Table 15. Proposition groups.

Non-financial resources provided by PE investors
1: Considering established companies, successful PE investors add value by focusing on promoting entrepreneurial behaviour in the organization.
2: Considering entrepreneurial companies, successful PE investors add value by focusing on promoting professionalization of the organization.
3: Successful PE investors are able to balance between promoting entrepreneurial behaviour and professionalization in their portfolio companies.
6: Considering entrepreneurial companies, recruiting of a new CEO adds value when it is aimed at professionalizing the company.
7: Considering established companies, recruiting of a new CEO adds value when it is aimed at revitalizing the company.
Investor characteristics
8: Benefits from affiliating with a reputable PE company are greater for VC backed than buyout backed companies
9: Successful PE investors actively participate in only those aspects of the portfolio company business of which they have relevant expertise.
10: Successful PE investors identify their own expertise profile and are able to provide complementary expertise through their networks.
PE investor's approach on strategic planning and effect of industry dynamism
4: In buyout investments, the focus of strategic planning is on the development of a medium-term value creation plan.
5: In venture capital investments, the focus of strategic planning is on ongoing strategic discussion.
11: When the industry changes as expected, successful PE investors promote the implementation of the original strategic vision.
12: When industry changes are unexpected, successful PE investors adjust the original value creation plan.

Considering the question *"How have private equity investors used value-adding mechanisms in order to contribute to the operational performance of their Finnish portfolio companies?*, propositions 1,2,6 and 7 imply that the development stage of the portfolio company affects value-adding mechanisms of private equity. For entrepreneurial companies, one key value-adding mechanism of private equity is increased professionalism through development of company structures and the top-management team. This finding is consistent with and complements findings of Hellmann & Puri (2002); besides venture capital investors, also buyout investors have a role as promoters of professionalization when the portfolio company is at a phase of fast growth that, in order to be sustainable, requires the development of company processes and structures.

On the other hand for more established PE backed companies, a significant component of value added comes from increased ambition level and justified yet controlled risk-taking. This finding was found to be relevant for both buyout- and VC backed companies. Considering the existing academic research, this result is somewhat contradictory to the traditional view that sees buyouts as promoters of efficiency (Jensen 1989). However contrary to that belief, several studies have argued that buyout investors have also role as promoters for opportunity-seeking behaviour (Bruining & Wright 2002; Bruining et al. 2013; Wright et al. 2000; Wright et al. 2001). Findings of this study suggest that in several cases, value added of private equity comes from increased entrepreneurial behaviour and that improved efficiency is rather a necessary condition that facilitates pursued fast growth than a central value-adding mechanism.

Proposition 3 provides one final insight considering the above-presented research question. According to that proposition, PE investors contribute to the performance of their portfolio companies by continuously pursuing balance between promoting of opportunity-seeking actions and professionalization measures. This means that although investors typically focus on promoting either entrepreneurial behaviour or professionalization, they should ensure that the company sustains also a sufficient level of the other component. This way, PE investors are able to sustainably help their portfolio companies enter the next stage of development. As discussed in Chapter 4.1 if the PE investor during the first years of investment focuses, for example, on professionalizing the company, it should be ensured that the company sustains entrepreneurial spirit in order to grow also in the future. Findings of Bruining et al. (2013) are in line with the result provided by Proposition 3. Bruining et al. (2013) argues that PE investors help their portfolio companies to become ambidextrous i.e. able to maintain and develop both entrepreneurial and administrative management practices. Results of this study extend this finding by presenting that same perspective is relevant also in the case of VC backed companies.

Looking results from the perspective of investor characteristics, propositions 9 and 10 indicate that experience of the investor and 'external' expertise acquired through investor networks complement each other. Considering the research question *"How do investor characteristics affect value added by private equity?"*, this finding implies that not only PE investor's own experience and related expertise but also her/his ability to acquire complementary expertise through networks affect value added of private equity. Considering the existing academic research, findings of this study complement the perspective that investor experience or some other investor characteristic itself would have a positive effect on portfolio company performance (e.g. Kaplan & Schoar 2005; Sorensen 2007). Investor experience indeed may be beneficial for the portfolio company but it is not a necessary condition for portfolio company success. Instead, ability to offer a balanced portfolio of expertise seems to be a unifying factor across successful cases.

The key implication of propositions 4,5, 11 and 12 i.e. results discussing the effect of industry dynamism and investor type on investor involvement in strategic planning is the importance of adaptive approach. On one hand, a pre-defined strategic vision seems to be a highly effective value-creation tool in several buyout cases (see e.g. cases A, D and E). On the other hand, during unpredictable times, also those investors that focus on more established and stable companies should be able to adjust the strategy of the portfolio company according to new industry fundamentals.

In the academic context, predefined strategic planning and ongoing strategic dialogue are to some degree analogous to emerging and deliberate strategies (Mintzberg & Waters 1985). The debate between the usefulness of deliberate and emerging strategies is an extensively discussed topic in the strategic management literature (see e.g. Porter

1996 vs. Mintzberg 1987). However, involvement in strategic planning is yet a relatively unstudied topic in the private equity literature. Findings of this study imply that due to the different investment focuses and risk profiles, buyout investors and VC investors may benefit from different types of approaches on strategic planning. However, ultimately, all PE investors should aim at balancing between forward-looking strategic planning and corrective adjustments when participating in strategic planning in their portfolio companies.

In conclusion, a good PE investor first and foremost adjusts the extent and nature of her/his involvement depending on development stage of the portfolio company, industry dynamics and her/his own expertise. PE investors are able to help their portfolio companies prosper by promoting right type of management practices and providing support through their own expertise and networks of external experts. Results of this study imply that in the Finnish context, PE investors are *an important form of ownership that is both active and professional* and hence facilitates fast and sustainable growth of Finnish companies.

5.2. Reliability and validity

This chapter analyses quality of results and limitations of this study in terms of four concepts; construct validity, internal validity, external validity and reliability. Construct validity refers to the question whether acquired data appropriately describes the studied phenomenon. Internal validity refers to credibility of causal arguments while external validity can be considered generalizability of results. Finally, a case study is reliable if it can be repeated with the same results by also other researchers. (Yin 1994; Gibbert et al. 2008)

In this study, the key concern related to the quality of results is construct validity – does the study examine what it claims to be examining. The main threat to construct validity is the potential subjectivity of results. There are three ways to overcome this threat; use of multiple data sources (Gibbert & Ruigrok 2010; Denzin & Lincoln 1994), establishing of a clear chain of evidence and let key informants to review the report before publishing results (Yin 1994). Considering two latter-mentioned ways, this study can be considered relatively valid; research questions led data collection phase, all data was documented and collected into one database, results are based on collected data, and key interviewees read and approved main results of the study.

Considering the number and variety of data sources, construct validity evokes some concerns. On one hand, interviewees of this study include both representatives of PE companies and CEOs of PE backed companies. However, a larger number of interviewed CEOs and interviews with, for example, potential foreign investors of case companies would improve construct validity of this study. The combination of different perspectives would allow a more rigorous comparison between non-financial services that PE investors claim to be providing and non-financial services that entrepreneurs/managers actually consider value adding.

Considering the fsQCA analysis on the effect of investor experience on portfolio company performance, the degree of construct validity should also be assessed. In this analysis, the amount of experience is used as a proxy for cumulated business, industry or PE expertise. In order to further improve the construct validity of this analysis, CEOs and other key employees of case companies could be asked to assess the perceived amount and areas of investor expertise.

In terms of internal validity, the main concern is whether there are alternative explanations for the studied phenomenon (Yin 1994) i.e. whether some other PE-investor-related factors than those identified in propositions that contribute to portfolio company performance. In order to tackle this concern, patterns emerging from the data were constantly compared with findings of the existing literature (Eisenhardt 1989). For example, existing academic literature has identified the effect of buyout investment on increased entrepreneurial orientation (see e.g. Wright et al. 2000) as well as effect of venture capital funding on portfolio company professionalization (Hellmann & Puri 2002). Also the effect of prior experience of the PE investor on portfolio company performance is identified also in the earlier academic studies (see e.g. Bottazzi et al. 2008). As a consequence, obtained results take multiple perspectives into account and complement existing academic findings.

The main threat for internal validity in this study is the appropriateness of the sample. As the number of cases with negative growth in the sample is relatively small, it is possible that this study fails at capturing those factors that are unique only to successful cases. Hence, in order to increase the internal validity of this study, the most critical next steps would be to include more cases with negative post-investment performance in the sample and to re-conduct the cross-case analyses with this more balanced sample.

Furthermore, it should be acknowledged that internal validity evokes some concerns considering results discussing which characteristics are valuable for PE investors; importance of investor networks (see e.g. Hochberg et al. 2007) is probably underestimated in this study. This limitation is mainly related to the research design; Interviewees were asked also to describe their networks and impact of those networks but as individual's own perceptions on her/his networks are probably somewhat subjective, findings related to networks were not considered valid enough to be included in this study.

Considering external validity, a multiple case design combined with configurational approach and the use of replication logic, i.e. treatment of cases as distinct experiments, ensure that results of this study can be analytically generalized in the Finnish context. At this point, a distinction should be made between analytical i.e. theoretical and statistical generalizability; the chosen research design is suitable for theory-building rather than theory-testing purposes (Eisenhardt 1989). A quantitative, theory-testing approach would be required in order to establish statistical generalizability of results. However, as indicated by the research question and design, theory testing is not the objective of this study, and hence a more quantitative approach and, for example, further developed fsQCA analyses with larger sample are rather suggestions for further research than limitations of this study. Similarly, as the study focuses on the Finnish PE sector, the fact that results of this study are context-dependent and can not be applied to other geographical regions provides avenues for further research rather than reduces the quality of results.

Finally, reliability of results does not significantly limit quality of the results. First, Chapters 3 and 4 provide a case study protocol (Yin 1994) i.e. these chapters explain which methods, techniques and assumptions have been used to obtain results of this study. Second, all key data used in this study including the most important quotes, case descriptions and interview templates are presented in the report and its appendices. In addition, these documents combined with transcribed interview data and interview notes are collected in one database (in this case in an ATLAS.ti hermeneutic unit) as suggested by Yin (1994). In summary, results of this study can be considered reliable and valid in the context of Finnish PE sector.

5.3. Directions for further research

This study provides a comprehensive overview on the value-adding mechanisms of the Finnish private equity sector. Results of the study indicate that in the Finnish context, PE investors facilitate fast and sustainable company growth by i) promoting risk-taking when it is justified and controllable and ii) providing risk-mitigating non-financial services during phases of fast growth. This finding is not novel itself (see e.g. Carpenter et al. 2003; Bruining et al. 2013) but it highlights the need for acknowledging PE investing as an important form of active and professional ownership. In further studies, propositions of this study could be further developed into hypotheses and tested in order to see whether same results apply across larger populations. For example, fsQCA analysis on the effect of investor background and support provided by external board members would be interesting to conduct with larger sample size.

Furthermore, a 25-year-old Finnish PE industry is still relatively young, and it is likely that investors in more mature or larger PE markets differ in terms of value-adding mechanisms. A cross-country comparison between the Finnish and, for example, the US PE sector would provide deeper understanding on how the size and maturity of the PE sector affect non-financial services provided by PE investors. An interesting question would be, for example, whether Finnish and US-based PE investors differ in terms of risk preferences and ability to promote entrepreneurial behaviour and professionalization in their portfolio companies.

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Appendix A: Case summary

Case ID	Type of investment	Short case description
A	Buyout	Two companies were merged, and a Finnish buyout fund invested in the new entity. After the merger, the growth has been driven by several acquisitions in Finland and Sweden. Some owner-entrepreneurs remained as minority shareholders and operating managers in the company. The company was sold to another buyout fund.
B	Buyout	The owner-entrepreneur sold the majority of his ownership to a Finnish buyout fund and remained as the CEO and a minority shareholder in the company. The company has grown organically in Finland and entered the Swedish market.
C	Buyout	The management sold majority of their ownership to a Finnish buyout fund, but remained as significant minority shareholders and operating managers in the company. Sales of the company halved during the financial crisis. Since then, the company has grown mainly through acquisitions in Finland and Sweden.
D	Buyout	Before the buyout, the company was a part of a large, publicly listed Finnish company. Since the buyout, the firm has grown through acquisitions and a greenfield project in the Nordics. Owner-entrepreneurs of acquired companies (incl. the MD of the platform company) have remained as minority shareholders and operating managers in the company. The company was acquired by a trade buyer.
E	Buyout	The former owner-CEO sold his whole ownership to a Finnish buyout fund. Since then, the company has grown organically in Finland and entered the Swedish market through an acquisition. Owner-entrepreneurs of the acquired Swedish company remained as minority shareholders and operating managers in the company.
F	Buyout	A Finnish buyout fund company acquired majority of the company. Owner-entrepreneurs remained as minority shareholders and operating managers in the company. Shortly after the buyout, the market crashed due to political dispute. After that, the company changed its strategy and has grown mainly organically in Finland. The company was acquired by another buyout fund.
G	Buyout	The management sold half of their ownership to a Finnish buyout fund. After the investment, the company has grown mainly organically in the Nordics and the Baltics. The operating management, together with external investors, acquired the fund's ownership.

Case ID	Type of invest-ment	Short case description
H	Buyout	Two companies were merged and a Finnish buyout fund invested in the new entity. The CEO of the other company continued as the CEO of the new company. After the merger, the company has grown both organically and through acquisitions in Finland. The company operates also in other Nordic countries.
I	Buyout	A Finnish buyout fund acquired majority of the company's ownership. The main growth theme during the fund's ownership was internationalization, which did not realise as expected. The company was sold to a trade buyer.
J	VC	Finnish VC investors are also co-founders of the company. After the investment the company has raised two new funding rounds. Besides the Finnish VC fund, the company has three international VC funds as investors. A few years after the establishment, the company merged with another company.
K	VC	A Finnish VC fund invested in the company, after which the company has grown organically mainly in the United States and Latin America.
L	VC	A Finnish VC fund invested in the company, after which the company has grown globally and decided to refocus its strategy in terms of customer segments it serves.
M	VC	A Finnish VC fund invested in the company, after which the company has launched its first product and entered the global market. During the financial crisis, the firm refocused its strategy in terms of customer segments is serves. The second round of funding was raised a few years after the first investment. Besides the Finnish VC fund, also a foreign VC fund participated in the second round.
N	VC	A Finnish VC fund invested in the company, after which there has been two additional funding rounds in which two new angel investors have invested in the company. The company has expanded its product portfolio, entered international markets and invested in own production capacity.
O	VC	A Finnish VC fund invested in the company together with another institutional investor. Since then, the company has developed and launched new products and grown mainly in the United States and Asia. The second round on financing was raised a few years after the first VC investment.

Appendix B: Industry dynamism perceived by PE investors

Case ID	Perceived rate of change of the industry (1=very low, 5=very high)	Perceived uncertainty of industry changes (1=very low, 5=very high)
A	N/A	N/A
B	4	2
C	2	4
D	5	2
E	N/A	N/A
F	1	1
G	5	2
H	4	3
I	2	2
J	2	2
K	5	2
L	N/A	N/A
M	2	3
N	4	2
O	4	4

Appendix C: Focus of strategic planning

Case ID	Summary	Illustrations
A	Pre-defined value-creation plan	"We discussed with five or six entrepreneurs and noticed that with this type of service portfolio, the company could have an opportunity to succeed. And there were a few companies and entrepreneurs who were interested in to be involved in this type of an entity. That's how the story began." -Investment partner
B	Pre-defined value-creation plan	"They (the management) surely had a general idea that next to us is an economy that is twice as large as ours and the market for [their product] is probably large. However, no one actually understood whether it really is a good market to enter and why it would be and why it wouldn't be. ... We decided to do a market research and when it showed that we should enter the market, we started to think how to enter and what we should do there. We (the investor) acted as a sparring partner to the team and the project leader when the actual market entry started after the summer of 2012." -Investment manager
C	Pre-defined value-creation plan	"Despite that (difficult market), we have been able to implement our initial plan to consolidate the industry. ... In general, consolidating the market and expanding even more strongly in Sweden have been sort of milestones." -Investment manager
D	Pre-defined value-creation plan	"It (building of a PE-owned Pan-Nordic player) was one of the main points of the original idea - this is how we will do and this is what is going to happen at the exit. And this is what happened." -Investment manager
E	Pre-defined value-creation plan	"Our operating model is that before we make the investment, if possible, we want, together with the management and a project-based advisory group, go through the plan about what we would like to do during the next five years, or whatever the time period during which we are planning to be involved in the company is." -Investment partner
F	Pre-defined value-creation plan	"(In the beginning), we thought how to expand the business. We operated in certain markets and then we started to think what are those concepts and organizational structures that enables the company to enter the next stage of development." -Investment partner

Case ID	Summary	Illustrations
G	Pre-defined value-creation plan	"Right in the beginning, when we invested the company, we sat down, both formally and informally, with the core team and created a development plan. ... Considering the actual strategy, we met once a year and checked that this is our strategy, do we need to change it. However, the strategy was mainly created in the beginning and it (the initial strategy) was followed" -Investment partner
H	Pre-defined value-creation plan	"One important thing (milestone), if we talk about [the company] has been the development of the growth strategy. There were two small companies that were merged in the beginning. One had more established position in the market and another one was an early-stage company that, however, had the offering and idea that suited industry trends. An important thing in that (case) was definitely the development of the mutual strategy, what we want to do, certain choices related to for example technology platforms and key customer segments and these types of things." -Investment partner
I	Pre-defined value-creation plan	"In this case, like in other cases too, when we get to know the company and the company gets to know us there are several discussions. And if (during these discussions) we agree what this company should be about, then there is a common vision where we should go. And I believe that from the perspective of these companies and their owners who stay in the company, this is the essential question." -Investment partner
J	Ongoing strategic dialogue	"(Our involvement is related to) large strategic decisions - on one hand to product strategy, on the other hand to the overall business strategy. And of course, if we have large negotiations with big players, we consider how we should be involved and how we should play this game." -Co-founder/investment partner
K	Ongoing strategic dialogue	"We do quite actively strategy work together. The world changes at a tremendous pace around this company. ... For that matter, one has basically all the time think where this company is, where it should be, where the market is and where it should not be. Well, of course we try to think also the big picture – what problem it (the company) solves, what value added it provides and how it should be positioned in the market." -Investment partner

Case ID	Summary	Illustrations
L	Ongoing strategic dialogue	"Together with the CEO and the management, we develop the strategy continuously. Strategy is an ongoing process." -Investment partner
M	Ongoing strategic dialogue	"(Things that the PE investor comments are such like) 'now this plan is not aggressive enough, you have to had a more aggressive plan' or 'this requires too much money/too little money'. (PE investor has also said that) 'now you should evaluate the market so that we could find acquisition targets/exit candidates'. These are areas in which the board and the PE investor are clearly involved." -CEO
N	Ongoing strategic dialogue	"We have had annually strategic meetings where we have thought whether those paths that we have chosen are the right ones and what other steps should we take and how we focus the business." -Investment partner
O	Ongoing strategic dialogue	"Investor provides guidelines, comments the strategy and provides different perspectives. ... At a very concrete level, (investor) comments (the strategy) and provides insights on budgets and resource plans that are developed based on the strategy." -CEO

Appendix D: Reasons to recruit a new CEO

Case ID	Summary	Illustrations
A	The new CEO was needed to lead the organization during the strategic transformation	"When we acquired these two platform companies, our first step was to recruit external board members and the management team. (Our role was to) recruit them and justify to entrepreneurs ... why this makes sense, why this is needed." -Investment partner
D	The new CEO was needed to lead the organization during the strategic transformation	"It was quite a difficult structure (i.e. formerly independent entrepreneurs were now a part of the larger organization but still significant minority shareholders in the company). That's why one had to choose a CEO who does not only lead by facts but who is also diplomatic, has natural charisma and builds trust while at the same time looks after all these subsidiaries." -Investment manager
E	The new CEO was needed to lead the organization during the strategic transformation	"It was clear that the entrepreneur, who sold his ownership in this transaction, is not the person who takes this (company) to the next level. ... We had a clear vision that this (company) needs a new management." -Investment partner
J	The new CEO was needed to bring in new blood and insights	"And at some point we noticed, and it is no surprise, that we need new ways of thinking and doing things. ... Then we decided that now is the right time to find a new CEO who can bring in new blood and energy, new ideas and new ways of working." -Investment partner/Co-founder
L	The new CEO was needed to professionalize the company	"Due to the new CEO and the (external) investor, (the company) has become much more structured. [The company] has changed tremendously from a start-up to a real company with processes." -Investment partner
M	The new CEO was needed to professionalize the company	"I would say that one significant event for the company was when in the end of 2009, the company hired so called professional CEO. Of course, it was a big change for me but I would say that it was a big change for the company too." -CEO

Appendix E: Role of reputation in VC cases

Case ID	Summary	Illustrations
J	PE investor provides legitimacy in the eyes of other investors	"Now other investors see that there is at least one investor and a board member who has industry experience and knows the industry. So, there is at least on logical and competent investor for this company. It is probably the most important (role of the VC investor)." -Investment partner/Co-founder
K	PE investor represents the company in client meetings	"I have been meeting clients with the management for example at dinner parties. ... Perhaps, (the role of those meetings) is just to bring credibility - the company is larger than just a small firm from Finland." -Investment partner
L	PE investor represents the company in client meetings	"As a chairman of the board, I am quite a lot involved in these high-level negotiations. . . . It is part of my job description. However, it is the team who does these (deals) anyway. . . . (For example) In the Far East, if the board of directors or some senior executive (of the customer) is invited to the dinner table, also we have to have executives of the same level. It is part of the business culture." -Investment partner
M	PE investor provides legitimacy in the eyes of other investors	"(In financing negotiations), I opened many doors and participated in the first discussions as well as negotiations of deal terms. ... Travelled together with the CEO in investor meetings." -Investment partner
N	PE investor provides legitimacy in the eyes of other investors	"Yes, [The former investment partner] said that he played an important role in getting [Public provider of finance], banks and the outside investor involved (in the case)" -Investment partner
O	PE investor provides legitimacy in the eyes of other investors	"We are even able to use financing services of commercial banks because we have real assets and real revenue. . . . [Three institutional investors] are all very stable and trustworthy names, which provides us with credibility when acquiring additional financing." -CEO

Appendix F: Cases in which strategy has changed during the investment

Case ID	Summary	Illustrations
F	Major change in the strategic direction	"The idea started when the CEO, I and one external board member sat down in August 2010 and noted that [the industry] will be down for so long that we don't have time or need to wait for that (growth of the industry). We considered what resources we had - do we had some building blocks that can be used in other businesses than in [the business]. ... Finally, we had a couple of options from which we chose [the new business] ... The starting point was that we will not give up, this is not over." -Investment partner
I	Re-focusing of strategic priorities	"As a small company, [the company] did not have enough resources to achieve (expected) results. In the beginning of 2011, we decided to stopped investing in internationalization." -Investment partner
L	Re-focusing of strategic direction in terms of target customer segments	"I don't know what other people think but the replacement of the CEO and divesting [a business line] were initiated by us." -Investment partner
M	Re-focusing of strategic direction in terms of target customer segments	"At some point we focused (the strategy). It was the idea of the management and investors during the financial crisis, which hit this sector very hard, we focused very intensively on [a customer segment] and did not expand in [another segment]." -Investment partner
O	Re-focusing of strategic priorities	"At the end of 2013 the business had grown well but there was room to focus. And also room to improve our business development cooperation practices with large industry players." -Investment partner